e-Journal of Linguistics
Available online at https://ojs.unud.ac.id/index.php/eol/index
Vol. 14, No. 1, January 2020, pages: xx-xx
Print ISSN: 2541-5514 Online ISSN: 2442-7586
https://doi.org/10.24843/e-jl.2020.v14.i01.p08

Effectiveness of Semantic Feature Analysis on Naming Ability in Individuals with Aphasia in Surakarta

[1]Ghefira Maha Ghaysa
Poltekkes Kemenkes Surakarta, Surakarta, Indonesia, geviramahageisa@gmail.com

[2]Hafidz Triantoro
Poltekkes Kemenkes Surakarta, Surakarta, Indonesia, Pratomo.hafidz@gmail.com

[3]Setyadi Nugroho
Poltekkes Kemenkes Surakarta, Surakarta, Indonesia, setyading@gmail.com

Article info

Received Date: October 31, 2025

Accepted Date: December 17, 2025

Published Date: January 31, 2026

Keywords:*
semantic feature analysis, aphasia, naming ability, lexical retrieval

Abstract*

The purpose of this research was to see how the Semantic Feature Analysis (SFA) approach improved the naming skills of people with aphasia in Surakarta. Aphasia's major lexico-semantic symptom is anomia, or trouble finding words, which greatly hinders communication and quality of life. This study was designed to improve evidence-based treatment for this group. The research used a quantitative pre-experimental design with a single group pre-test and post-test. The sample consisted of ten people with aphasia, mostly Broca's type (80%), who were chosen by purposive sampling in Surakarta. The intervention, Semantic Feature Analysis, was delivered over 12 sessions. Naming ability was assessed using the TADIR instrument, and results were analyzed using a Paired T-Test. The study found a significant change in naming scores before and after the SFA intervention, with a p-value of 0.000 (≤ 0.05). This resulted in the rejection of the null hypothesis (H0), indicating that the SFA intervention is beneficial.

1. Introduction

Aphasia is a communication condition caused by brain injury that manifests as deficits in numerous elements of language, including speaking, listening, reading, and writing. This disease is not caused by sensory or motor impairments, general intellectual abnormalities, confusion, or mental illnesses (Brookshire in Chapey, 2008). It is vital to note that aphasia may damage one or all symbolic communication modalities, such as speaking, listening, reading, writing, and the receptive and expressive use of sign language. The majority of cases include disruptions in one or more areas of language (Chapey, 2008).

Symptoms experienced by individuals with aphasia include impairments in various language components, such as lexico-semantic, phonological, morpho-syntactic, and other linguistic aspects. At the lexico-semantic level, individuals often experience difficulties in understanding word meanings and in retrieving appropriate words. Phonological impairments are

evident through errors in sound production, such as substitutions, omissions, or additions of phonemes. In addition, morpho-syntactic aspects are also affected, resulting in difficulties in constructing grammatically correct sentences in both spoken and written language. These difficulties cause a mismatch between what the individual knows and what they can express, thereby hindering communication (Anas et al., 2024).

One of the most prevalent and severe lexico-semantic symptoms of aphasia is anomia, which refers to difficulties comprehending and recalling meaningful words (content words), both spoken and written (Dharmaperwira-Prins, 2002). Naming problems in aphasia are prevalent because the naming process requires access to word meaning (semantics), which is subsequently linked to word form. These challenges not only impair communication ability, but also social interaction and the quality of life for people with aphasia. Therefore, effective therapy techniques are required to enhance language abilities, especially naming skills, to assist persons with aphasia converse well.

Aphasia is a global health concern that requires serious attention, given its high prevalence among post-stroke patients. Research indicates that approximately 12%–33% of stroke patients also experience aphasia (Mitchell et al., in Pratomo, 2024). A study conducted by Pratomo (2024) also showed that anomia, or difficulty naming objects, is the most common language disorder experienced by individuals with aphasia, with 68.42% of therapists reporting anomia as a frequent problem encountered in clinical practice. These findings reinforce that anomia is one of the main indicators in aphasia diagnosis and intervention, highlighting the need for more effective therapeutic approaches to improve patients' communication abilities. This aligns with the urgency for further research to develop more optimal and evidence-based rehabilitation strategies.

The semantic-based approach has been shown to be successful in treating name problems. This technique seeks to improve naming ability by either repairing or strengthening semantic representations, or activating weakening semantic representations (Maher & Raymer, in Efstratiadou et al., 2018). Semantic Feature Analysis (SFA) is a therapeutic strategy that tries to rehabilitate lexico-semantic deficiencies (Efstratiadou et al., 2018; Milovanović et al., 2024). According to Boyle (2016), SFA enables people with aphasia to access important semantic information, making it simpler for them to recall the proper term while speaking. This strategy has been used in many research and has shown good results in improving naming ability in people with aphasia.

A review of research on the application of Semantic Feature Analysis (SFA) reveals that Santoso (2023) found SFA to be beneficial in increasing naming skill in patients with motor aphasia, with an efficacy value of 0.898 utilizing a One Group Pre-test Post-test design. This conclusion is consistent with the current study's goal, since both assess the efficacy of SFA, despite differences in aphasia kinds, research sites, and dependent variables. Furthermore, Murray (2020) discovered in a meta-analysis that SFA increases naming accuracy, particularly for taught words, with efficacy impacted by treatment dose and aphasia severity but not by age or post-onset length. The similarities to the current study stem from the same purpose of assessing the efficacy of SFA, but the distinction is in approach, since Murray's analysis synthesizes data from numerous earlier studies.

Efstratiadou et al. (2018), in a systematic review, also reinforced evidence that SFA produces naming improvements in most individuals with aphasia, although variations in strategies, therapy dosage, and participant characteristics still resulted in positive responses. Similarities with the present study include the focus on evaluating SFA effectiveness and the analysis of therapy-related variables; however, the planned research will focus on a local

population with a different research design. Meanwhile, Milovanović et al. (2024) demonstrated that SFA is beneficial not only for word naming but also for improving narrative discourse quality in fluent aphasia, extending SFA application to more complex language aspects through a clinical prospective design evaluating outcomes up to two months after therapy completion.

The study by Scholl et al. (2021) further expands existing evidence by comparing SFA effectiveness in individuals with aphasia with and without apraxia of speech (AOS), showing that the presence of AOS influences therapy response in both lexical and phonetic-motor aspects. The similarity between that research and the present study lies in the shared focus on using SFA to improve naming ability, while differences exist in subject characteristics and outcome variables analyzed. Overall, previous studies confirm SFA's effectiveness in various aphasia contexts, but each involves different designs, populations, and variables; thus, the planned study still holds a relevant and original position in strengthening evidence for SFA use in different populations.

Given the importance of naming challenges in people with aphasia, study into the efficiency of semantic feature analysis for increasing name skills in Surakarta becomes critical. Semantic-based approaches, notably SFA, have been shown to improve naming skills in people with aphasia. However, the usefulness of this strategy in the Surakarta clinical environment requires more investigation to guarantee proper application. As a result, this research is intended to make major contributions to the development of evidence-based treatment and provide the groundwork for more successful rehabilitation efforts to enhance communication skills and quality of life in people with aphasia.

2. Research Methods

This pre-experimental research was carried out in Surakarta from February to October 2025, using a One Group Pre-test and Post-test design. This approach enables the researcher to administer the Semantic Feature Analysis (SFA) technique to a single set of individuals and then compare their results before and after the intervention. The study population included all people with aphasia in Surakarta, and the sample was chosen using purposive sampling based on inclusion criteria such as having been diagnosed with aphasia according to TADIR, not having any accompanying disorders, and being willing to participate in the study. A total of ten responses satisfied the requirements and were selected as study participants.

Data collection was carried out through systematic stages, beginning with administrative preparation, recruitment of enumerators, and training on intervention procedures and instrument usage. During the implementation phase, enumerators provided explanations to the respondents' families, obtained informed consent, and then conducted a pre-test using TADIR to assess naming ability. Respondents who met the requirements then underwent 12 sessions of SFA intervention (three times per week). After completing the intervention series, enumerators conducted the TADIR post-test and collected all data for further analysis.

The major instrument utilized in this research was TADIR, which tests naming skill via 8 questions with score categories such as spontaneous response, delayed response, and wrong answer. In addition, a standardized SFA module was employed to ensure uniformity across intervention sessions. The data was examined using SPSS in two steps. A descriptive analysis was done to compare naming abilities before and after the intervention. The descriptive study included examining the naming skills of people with aphasia before and after the Semantic Feature study (SFA) intervention in Surakarta. Meanwhile, bivariate analysis was carried out using either the paired t-test or the Wilcoxon signed-rank test, depending on the Shapiro-Wilk normality test findings. This methodology presents a statistical review of the SFA method's efficacy in increasing naming skills in aphasia patients.

3. Results and Discussion

3.1 Respondent Characteristics.

Tabel 1
Frequency Distribution of Respondents by Age

	Age	Percentage	
Valid	55-59	1	10%
60-64	3	30%	
65-69	3	30%	
	>70	3	30%
	Total	10	100%

Table 1 shows the distribution of respondents based on age. There is an equal highest frequency in three age groups, namely early elderly (60–64 years), middle elderly (65–69 years), and late elderly (>70 years), each with a frequency of 3 people or 30%. The age group with the lowest frequency is late adulthood (55–59 years), with 1 person or 10%. Overall, these findings indicate that the majority (90%) of respondents in this study fall into the elderly age group (60 years and above).

Tabel 2.
Frequency Distribution of Respondent Characteristics by Gender

Gender	Sum	Percentage
Male	6	60%
Female	4	40%
Total	10	100%

Table 2 also shows that the study respondents were dominated by males, totaling 6 people or 60%, while female respondents numbered 4 people (40%)

Tabel 3.
Frequency Distribution of Respondents by Last Education

	Sum	Percentage
Broca's Aphasia	8	80%
Conduction Aphasia	1	10%
TCM Aphasia	1	10%
Total	10	100%

Table 3 shows that the most dominant type of aphasia in this study group was Broca's Aphasia, with a frequency of 8 people or 80% of the total respondents. Respondents with conduction aphasia and transcortical motor aphasia (TCM) each consisted of 1 person (10%). Thus, the total number of respondents is 10, representing 100%

Tabel 4.
Frequency Distribution of Respondents by Last Education

Education Level	Number	Percentage
No schooling	2	20%
Elementary School	2	20%
Junior High School	1	10%
Senior High School	3	30%
University	2	20%
Total	10	100%

Table 4 shows that the respondents had diverse educational backgrounds. The education group with the highest frequency was senior high school/vocational high school (SMA/STM) with 3 people (30%). Meanwhile, three groups had the same frequency, namely no formal education (2 people), elementary school (2 people), and higher education (2 people), each representing 20%. The lowest frequency was found in the junior high school group, with 1 person (10%).

The etiology of injury refers to the cause of stroke experienced by the respondents, which in this study was CVA (Cerebrovascular Accident or stroke).

3.2 Description of Initial Language Skills (Pre-test)

Tabel 5.

Profile of TADIR (*Pre test*)

Sub Test	Raw		Norma	
	Skor	SD	Skor	SD
Talk (inf. Personal)	3,2	1,6	2,8	0,74
Mention (A)	2,8	2,03	2,6	0,91
Naming Tkt Kata (A)	3,7	2	2,9	0,83
Naming Sentence (B)	*	*	1,9	0,7
Tells	*	*	1,9	0,3
Reading Aloud	1,2	1,16	2,2	1,16
Imitating Speech (B)	1,1	0,83	2,1	0,83
Oral Comprehension (Total)	4	1,09	3,2	0,6
Personal Information (A)	1,8	1,93	2,3	1,48
Personal Information (B)	1,4	1,95	1,8	1,07
Written Comprehension (Total)	2,8	1,72	2,6	1,01
Writing Dictation (F)	0,8	1,24	1,8	1,24
Writing Word Level (F, LS)	2,5	3,26	2,2	1,6
Writing Sentence Levels	*	*	1,6	0,8

The results of the TADIR pre-test analysis (Table 5) show impairments across almost all language modalities with varying degrees of severity. Expressive (speech) impairments appeared more prominent than receptive impairments. This is reflected in the Word-Level Naming ability (A), which was the main focus of the intervention, with an average normative score of 2.9 ± 0.83. This value indicates that, on average, respondents were at a moderate to severe level of difficulty in naming. Low scores were also recorded in more complex speech functions such as Sentence-Level Naming and Storytelling, both of which had the lowest scores, 1.9 ± 0.7 and an average of 1.9 ± 0.3.

Although the most severe impairments were centered on expressive modalities, receptive abilities were also affected. The Oral Comprehension modality showed the relatively highest

score, with an average of 3.2 ± 0.60. However, this score was still below the normal threshold, indicating that respondents continued to experience difficulties in oral comprehension. In addition, Writing and Reading abilities also showed significant impairments, with Sentence-Level Writing being the lowest-scoring function (1.6 ± 0.80)

3.3 Results of Intervention with Semantic Feature Analysis (SFA)

Tabel 6.

Profile of TADIR (*Post test*)

Subtest	Raw		Norm	
	Shoes	SD	Shoes	SD
Talk (inf. Personal)	4,2	1,54	3,4	0,69
Mention (A)	5,1	1,59	3,7	0,48
Naming Tkt Kata (A)	6,3	1,7	4,1	0,73
Naming Sentence (B)	*	*	2,6	0,69
Tells	*	*	1,9	0,31
Reading Aloud	2,1	1,52	3,1	1,52
Imitating Speech (B)	2,3	1,05	3,2	1,13
Oral Comprehension (Total)	4,4	2,06	3,4	1,07
Personal Information (A)	3,2	2,29	3,5	1,84
Personal Information (B)	2,4	2,31	2,3	1,25
Written Comprehension (Total)	4,2	2,69	3,2	1,39
Writing Dictation (F)	1	1,49	2	1,49
Writing Word Level (F, LS)	2,5	3,44	2,2	1,68
Writing Sentence Levels	*	*	1,7	0,94

Overall, the post-test results in Table 6 show an improvement in language abilities across almost all modalities, especially in the expressive aspects that were the main focus of the intervention. While the pre-test results showed that expressive impairments were more prominent than receptive ones, the post-test results indicate significant improvement in language production abilities, particularly in the Word-Level Naming subtest (A). The average post-test score in this section reached 6.3 ± 1.7, which represents a substantial increase compared to the normative score (4.1 ± 0.73). This value indicates that the respondents experienced a clear improvement in their ability to name objects or single words, in line with the primary goal of the intervention using the SFA method. In addition, improvements were also seen in the Speech (Personal Information) and Repetition (A) subtests, with scores of 4.2 ± 1.54 and 5.1 ± 1.59, respectively, both of which are above the normative values (3.4 ± 0.69 and 3.7 ± 0.48). This shows that spontaneous verbal ability and word repetition ability have approached or even exceeded the normative average, indicating the recovery of more organized expressive functions.

In the receptive aspect, improvement is also clearly visible. Oral Comprehension (Total) obtained a score of 4.4 ± 2.06, higher than the normative value (3.4 ± 1.07), indicating that the ability to understand spoken language is already within a good range. Meanwhile, Written Comprehension (Total) showed similar results, with a score of 4.2 ± 2.69 compared to the normative value of 3.2 ± 1.39, indicating progress in understanding written text. Overall, the receptive abilities of the patients show meaningful improvement, although they have not yet fully reached the normal level.

Conversely, several abilities still remain below the normative average, particularly in Speech Imitation (B) and Oral Reading, with scores of 2.3 ± 1.05 and 2.1 ± 1.52, respectively,

both of which fall below the normative values (3.2 ± 1.13 and 3.1 ± 1.52). This indicates that difficulties in phonological production and verbal repetition still persist. In writing ability, the results varied: Dictation Writing (F) remained low, with a score of 1.0 ± 1.49, while Word-Level Writing (F, LS) showed slight improvement with a score of 2.5 ± 3.44 compared to the normative value of 2.2 ± 1.68.

Overall, the post-test results indicate that the respondents experienced meaningful progress in both expressive and receptive language abilities, particularly in naming functions and language comprehension. Although some areas, such as speech imitation, oral reading, and dictation writing, still show difficulties, this pattern of results suggests that the intervention has had a positive impact on improving overall communication ability.

Secara keseluruhan, hasil post-test memperlihatkan bahwa responden mengalami kemajuan yang bermakna pada kemampuan bahasa ekspresif dan reseptif, terutama pada fungsi menamai dan pemahaman bahasa. Meskipun beberapa area seperti meniru ucapan, membaca bersuara, dan menulis dikte masih menunjukkan kesulitan, pola hasil ini mengindikasikan bahwa intervensi yang dilakukan telah memberikan dampak positif terhadap peningkatan kemampuan komunikasi secara umum.

3.4 Comparison of Naming Abilities Before and After Intervention

3.4.1 *Gain Score*

Tabel 7.
Gain Score of the Word Naming Subtest

Participants	Pre Test		Post test		Gain	Gain
	Raw	Norm	Raw	Norm	Raw	Norm
Participant 1	6	4	8	5	2	1
Participant 2	2	2	6	4	4	2
Participant 3	3	3	4	3	1	0
Participant 4	1	2	3	3	2	1
Participant 5	3	3	7	4	4	1
Participant 6	5	3	7	4	2	1
Participant 7	7	4	8	5	1	1
Participant 8	2	2	6	4	4	2
Participant 9	2	2	6	4	4	2
Participant 10	6	4	8	5	2	1

Table 7 shows that nine out of ten participants (P1, P2, P4, P5, P6, P7, P8, P9, P10) demonstrated a positive Gain Score in the Norm score, indicating an improvement in the severity level of aphasia. The highest increase (a 2-point Gain in Norm scores) was recorded in Participants 2, 8, and 9. These participants began with a Norm score of 2 (one of the lowest) and were able to reach a Norm score of 4 after the intervention.

Conversely, Participant 3 was the only subject who did not show improvement in the Norm scale (Gain Norm 0), although he experienced a 1-point increase in the Raw Score. This suggests that the SFA intervention had minimal impact on Participant 3 compared to the other members of the group. Increases in Raw Scores (the number of correctly named items) varied between 1 and 4 points. The largest increase (4 points) in Raw Score was achieved by Participants 2, 5, 8, and 9. This improvement demonstrates that the SFA method consistently helped the majority of respondents increase the number of words they were able to name following the intervention.Overall, the Gain Score data descriptively provide evidence that there

was a positive difference in the naming ability of the respondents after the intervention, as indicated by the score increases observed in most participants..

3.5 Data Analysis Results

Tabel 8.
Saphiro-Wilk Normality Test Results

	Statistic	*df*	*Sig.*
Pre Test	0.893	10	*0.183*
Post Test	0.874	10	0.111

From Table 8, the Shapiro–Wilk test shows significance values greater than 0.05 (sig > 0.05), namely 0.183 for the pre-test and 0.111 for the post-test. Therefore, it can be concluded that the data are normally distributed

Tabel 9.
Paired T-Test Results

	Mean	Std. Deviation	95% Confidence Interval of the Difference		Sig. (2-tailed)
			Lower	Upper	
Pre Test Menamai-Post Test Menamai	-2.600	1.264	-3.504	-1.695	0.000

The statistics in Table 9 demonstrate that the significant value (p) derived from comparing scores is 0.000. According to the decision-making criterion, a significant difference is defined as a p-value < 0.05. The Null Hypothesis (H0) is rejected, whereas the Alternative Hypothesis (Ha) is accepted, since the significance value of 0.000 is less than 0.05.

This finding implies that there is a statistically significant difference in respondents' naming skill before and after the SFA intervention. This difference is positive, as shown by the Mean Difference value of -2.600, indicating that the average post-test score is significantly higher than the pre-test score. As a result, it has been shown that the SFA intervention improves respondents' naming abilities.

3.6 Discussion

3.6.1 Description of Naming Ability Before the Semantic Feature Analysis (SFA) Intervention

Prior to the SFA intervention, all subjects had difficulty naming. The TADIR pre-test results indicated a raw score of 3.7 ± 2 and a norm score of 2.9 ± 0.83. This suggests that the participants' naming skill remained in the poor level. Furthermore, not just identifying ability but practically all components of language skill exhibited impairments, indicating the wide range of language deficiencies suffered previous to the intervention.

These results are compatible with Chapey (2008), who claims that aphasia may impair language skills such as speaking, listening, reading, writing, and the use of sign language in both receptive and expressive modes. The majority of cases entail abnormalities in several or all language components, depending on whether the afflicted brain region has structural or functional damage.

One of the damaged characteristics of aphasia is the lexical-semantic level, which results in naming impairments (Pratomo, 2022). Naming deficits are defined as the inability to generate the right name for an item or circumstance when asked (Perrotta, 2020). Naming difficulties in aphasia are extremely prevalent because naming involves access to word meaning (semantics), which is subsequently linked to word form (Dharnaperwira & Maas, 2002; Efstratiadou et al., 2018). This claim is corroborated by a research performed by Pratomo (2024), which discovered that anomia, or difficulty identifying items, is the most prevalent language impairment among aphasia patients, with 68.42% of therapists indicating anomia as a regular issue seen in clinical practice.

SFA employs the core idea of semantic networks. The technique promotes wide activation of the semantic network by activating multiple semantic properties such as category, function, physical traits, location, and relationships (Boyle, 2010)..

3.6.2 Description of Naming Ability After the Semantic Feature Analysis (SFA) Intervention

Following 12 intervention sessions over one month with individuals with aphasia in Surakarta, the results showed that the raw score for naming reached 6.3 ± 1.7, with a norm score of 4.1 ± 0.73.

Anomia is a frequent and crucial lexico-semantic symptom in aphasia, characterized by difficulties comprehending and accessing meaningful words (content words) both verbally and in writing (Dharnaperwira & Maas, 2002). Naming problems in aphasia are common because the process involves access to word meaning (semantics), which is then linked to word form (phonological or orthographic) (Efstratiadou et al., 2018). Anomia may disrupt everyday communication, making it difficult for patients to express themselves or follow discussions, and it is often linked with injury to the temporal or parietal cortex (Goodglass & Wingfield, 1997).

The semantic-based approach has been shown to be successful in treating name difficulties. This technique aims to increase naming ability by restoring or strengthening semantic representations, or activating weakening semantic representations. Milovanović et al. (2024) propose using semantic feature analysis (SFA) to repair lexico-semantic deficiencies. This strategy has been evaluated in a variety of research and has showed good results in improving naming in persons with aphasia, via processes including the examination of word properties such as category, function, and association to reconstruct the semantic network (Coelho et al., 2000)

3.6.3 Effectiveness of Semantic Feature Analysis (SFA) on Naming Ability in Individuals With Aphasia in Surakarta

The study's findings reveal that the SFA approach improves both raw and norm scores on word-level identifying tasks in Surakarta persons with aphasia. The p-value < 0.05 ($p = 0.000$) suggests statistical significance, suggesting that the SFA approach may enhance naming competence in people with aphasia. These data suggest that there is a statistically significant difference in participants' naming skill before and after the SFA intervention. This difference is positive, as shown by a Mean Difference of 2.600, indicating that the average post-test score is significantly greater than the pretest score.

Thus, it has been shown that the SFA intervention is beneficial in enhancing participants' naming abilities. This method's success is also impacted by variables such as aphasia severity and patient education level.

This idea also explains the possible generalization effect in SFA treatment, which occurs when improved naming of taught items impacts untrained words with comparable semantic properties. For example, after training the word "table" with SFA, a patient may find it simpler to identify "chair," since both are furniture and have semantic qualities such as "used in the dining room" or "made of wood" (Boyle, 2010).

This generalization effect arises because SFA employs the notion of spreading activation throughout the semantic network, in which activating one concept enhances associated concepts (Coelho et al., 2000). Thus, SFA improves not just naming for taught words but also the overall structure of the semantic network, which has a favorable impact on patient communication.

A p-value of 0.000 indicates a highly significant result with an error probability of less than 0.05, indicating that the pre-post difference was not due to chance. The negative mean difference (-2.600) indicates the direction of improvement, with post-test scores higher, confirming the idea that SFA is helpful for aphasia (Coelho et al. 2000).

The severity of aphasia modulates reactivity to SFA, with individuals with moderate semantic abnormalities improving quicker (Murray, 2020). Individuals with more education may have stronger semantic networks, allowing for greater generalization (Evans et al., 2018). The generalization effect is based on the semantic network paradigm, in which SFA promotes links between ideas, allowing for transfer to related things (Efstratiadou et al., 2018). This is confirmed by neuroimaging research demonstrating prefrontal cortex activity during semantic tasks, which strengthens neuroplasticity (Rider et al., 2008). In clinical application, the generalization effect makes semantic feature analysis (SFA) effective since it does not need training on each word individually.

4. Novelty

This study presents novelty through the application of the Semantic Feature Analysis (SFA) method in patients with aphasia in Surakarta using a One Group Pre-test Post-test design, which has not been widely explored in the local population. In addition, this study not only assesses naming ability in general but also analyzes simultaneous changes in norm scores and raw scores to more accurately describe the severity of aphasia. Data collection was carried out flexibly through the integration of home visits, providing a methodological contribution in ensuring intervention consistency among patients with mobility limitations. All findings are strengthened by the latest literature regarding the effectiveness of SFA, resulting in scientifically relevant and contextual contributions to the development of language therapy in Indonesia

5. Conclusion

According to the study's findings, the majority of respondents were between the ages of 60 and 70 (30%), and the most prevalent kind of aphasia was Broca's Aphasia (80%). Educational backgrounds ranged from no formal schooling to higher education, and all respondents experienced a stroke (CVA). The Semantic Feature Analysis (SFA) intervention improved naming competence among people with aphasia in Surakarta. Almost all respondents improved their naming skill following the intervention, as demonstrated by paired t-test findings with a significant value ($p = 0.000 < 0.05$). This demonstrates a statistically significant difference between the pre-test and post-test scores, with the average post-test score much higher.

The raw score of 3.7 with SD 2 and the norm score of 2.9 with SD 0.83 indicated that the word-level naming skill was remained below average prior to the intervention. Following the intervention, post-test results revealed an improvement in word-level naming ability, with a raw

score of 6.3 with SD 1.7 and a norm score of 4.1 with SD 0.73.

The implication of this study is that there is a statistically significant difference between the respondents' naming ability before and after the Semantic Feature Analysis (SFA) intervention. This difference is positive, as shown by a Mean Difference of -2.600, indicating that the average post-test score was significantly higher than the pretest score. Thus, it has been shown that the SFA intervention is successful in enhancing respondents' naming abilities

References

Anas, B. P., Assago, C. C., Delvi, M. L. H. A., Nuranisa, W., & Hamidah, S. (2024). Language Disorders in Individuals with Aphasia. Pragmatics: Journal of Linguistics and Education, 2(3), 33–41. https://doi.org/https://doi.org/10.61132/pragmatik.v2i3.673

Boyle, M. (2010). Semantic Feature Analysis Treatment for Aphasic Word Retrieval Impairments: What's in a Name? Topics in Stroke Rehabilitation, 17(6), 411–422. https://doi.org/10.1310/tsr1706-411

Chapey, R. (2008). Language Intervention Strategies in Aphasia and Related Neurogenic Communication Disorders (R. Chapey, Ed.; 5th ed.). Lippincott Williams & Wilkins.

Coelho, C. A., McHugh, R. E., & Boyle, M. (2000). Case Study: Semantic Feature Analysis as a Treatment for Aphasic Dysnomia – A Replication. Aphasiology, 14(2), 133–142. https://doi.org/http://dx.doi.org/10.1080/026870300401513

Dharmaperwira-Prins. (2002). Aphasia: Description, Examination, and Management (Second Edition). Balai Penerbit Fakultas Kedokteran Universitas Indonesia.

Efstratiadou, E. A., Papathanasiou, I., Holland, R., Archonti, A., & Hilari, K. (2018). A Systematic Review of Semantic Feature Analysis Therapy Studies for Aphasia. Journal of Speech, Language, and Hearing Research, 61(5), 1261–1278. https://doi.org/10.1044/2018_JSLHR-L-16-0330

Evans, W. S., Cavanaugh, R., Gravier, M. L., Autenreith, A. M., Patrick, J., Hula, W. D., & Dickey, M. W. (2018). Effects of Semantic Feature Type, Diversity, and Quantity on Semantic Feature Analysis Treatment Outcomes in Aphasia. American Journal of Speech-Language Pathology, 30(1S), 344–358. https://doi.org/https://doi.org/10.1044/2020_AJSLP-19-00112

Goodglass, H., & Wingfield, A. (1997). Word-Finding Deficits in Aphasia: Brain–Behavior Relations and Clinical Symptomatology.

Milovanović, T., Vuković, M., & Mitrović, S. (2024). Effects of Treatment Using the Semantic Feature Analysis Method on the Improvement of Narrative Discourse in Persons with Fluent Aphasias. Acta Facultatis Medicae Naissensis, 41(3), 418–428. https://doi.org/10.5937/afmnai41-48950

Murray, L. L. (2020). A Meta-Analysis of Semantic Feature Analysis for Aphasia: Results Indicate It Works and Yields Information About Some Treatment- and Person-Related Variables. Evidence-Based Communication Assessment and Intervention, 14(4), 223–227.

Perrotta, G. (2020). Aphasia: Definition, Clinical Contexts, Neurobiological Profiles, and Clinical Treatments. Annals of Alzheimer's and Dementia Care, 4(1), 021–026. https://doi.org/10.17352/aadc.000014

Pratomo, H. T. A. (2022). Lexical Intervention: A Processing-Based Approach (T. Media, Ed.; 1st ed.). Tahta Media Group.

Pratomo, H. T. A. (2024). Management of Aphasia: An Early Investigation Survey. Journal of Speech Language and Communication Research, 1(1), 1–17. https://doi.org/https://doi.org/10.37341/wrnf9d60

Rider, J. D., Wright, H. H., Marshall, R. C., & Page, J. L. (2008). Using Semantic Feature Analysis to Improve Contextual Discourse in Adults With Aphasia. American Journal of Speech-Language Pathology, 17(02), 161–172. https://doi.org/10.1044/1058-0360(2008/016)

Santoso, Y. D. (2023). The Effect of the Semantic Feature Analysis (SFA) Method on Improving Naming Ability in Patients with Motor Aphasia at the Medical Rehabilitation Clinic of Dr. Kariadi Hospital Semarang [Poltekkes Kemenkes Surakarta]. https://lib.poltekkes-solo.ac.id/index.php?mod=penelitian_detail&sub=PenelitianDetail&act=view&typ=html&buku_id=14604&obyek_id=4&lokid=

Scholl, D. I., McCabe, P., Nickels, L., & Ballard, K. J. (2021). Outcomes of Semantic Feature Analysis Treatment for Aphasia With and Without Apraxia of Speech. International Journal of Language & Communication Disorders, 00(0), 1–16. https://doi.org/10.1111/1460-6984.12597

Biography of Authors

Ghefira Maha Ghaysa was born in Bukittinggi on June 5th, 2002. She is Bachelor's student of Speech and Language Therapy Poltekkes kemenkes Surakarta, Surakarta, Indonesia. Ph. +6281378386908
Email: geviramahageisa@gmail.com

Hafidz Triantoro Aji Pratomo.. SST.TW.,MPH is a Head of Bachelor of speech and language therapy Poltekkes Kemenkes Surakarta, Ministry of Health of Indonesia. Ph. +6281217213431
Email: Pratomo.hafidz@gmail.com

Setyadi Nugroho SH, MH is a lecturer at Poltekkes Kemenkes Surakarta, Surakarta, Indonesia. Ph. +6281229767767
Email: setyading@gmail.com