



Communicative Strategies: Usage and Factors Among People With Severe Aphasia

Jordyn Ludemann, B.S., Ellie Howton, B.S., & H. Sheen Chiou Ph.D., CCC-SLP

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Abstract

The purpose of this study was to investigate the use of compensatory communicative strategies before and after a stroke in people with severe aphasia (PWSA) and the factors that affect the use of these strategies. Data analysis was conducted from the Assessment for Living with Aphasia-Revised, and the Western Aphasia Battery-Revised. The results indicated that PWSA report both increasing and decreasing amounts of communicative strategies used, as well as the type of strategies used from pre-stroke to post-stroke. The results indicated that the language abilities of people with aphasia are highly variable, although there may be a relationship between positive and negative life participation scores and reporting use of communicative strategies. In conclusion, language and life participation scores in people with severe aphasia vary greatly from person to person.

Literature Review

- Aphasia severity and how people with severe aphasia rate their quality of life are not related. There are a variety of other factors that are not aphasia severity that impact quality of life (Williamson, Richman, Redman, 2011).
- Goal of using strategies is enhancing life participation (Williamson, Richman, Redman, 2011).
- Social communication, life participation, and communication strategies were very important to people with aphasia (Johansson, Carlsson, & Sonnander, 2011).
- Other than verbal strategies, many people with aphasia use a variety of strategies like the total communication model (Johansson et al., 2011).
- Strategies included pictures, drawing, gestures, asking communication partner to talk slowly, and communication devices (Johansson et al., 2011).
- Using modalities (communication strategies) are useful for communication breakdowns for people with aphasia both long-term and short-term (Nicholas, Sinotte, & Helm-Estabrooks, 2011).

Research Questions

- Question 1:** How do people with severe aphasia report use of communicative strategies differently after having a stroke?
- Question 2:** Does the ability to use communicative strategies relate to language severity or overall life participation in people with severe aphasia?

Methods

- Assessment for Living with Aphasia-R:** A patient-reported measure designed to assess an individual's aphasia, participation, environment, personal, and overall quality of life.
 - Example: How would you rate ***your*** talking?
 - Five-point aphasia friendly rating scale
 - 0 = frowning/thumbs down
 - 4 = smiling/thumbs up
- Assessment for Living with Aphasia: Pre-stroke version:** A patient-reported measure designed to assess an individual's reflected life participation before a stroke.
 - Example: How would you rate your ***talking before the stroke?***
 - The same five-point aphasia friendly rating scale is used
- Western Aphasia Battery-R:** Assesses all aspects of language and provides diagnosis information.
 - Aphasia Quotient (AQ): reflects aphasia severity. This score is calculated from the following subtests:
 - Linguistic: content, fluency, auditory comprehension, repetition & naming, reading & writing and nonlinguistic subtests.

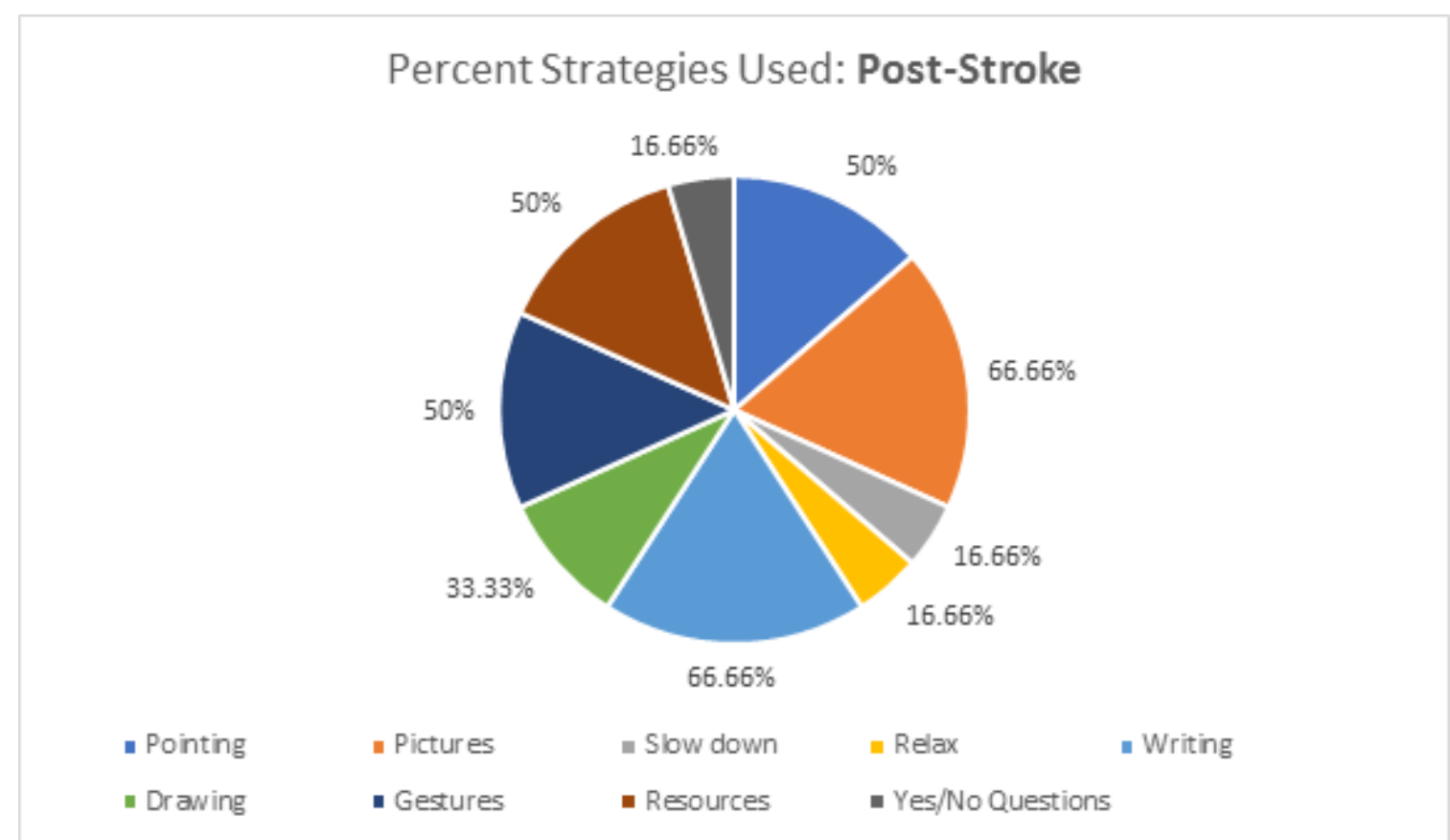
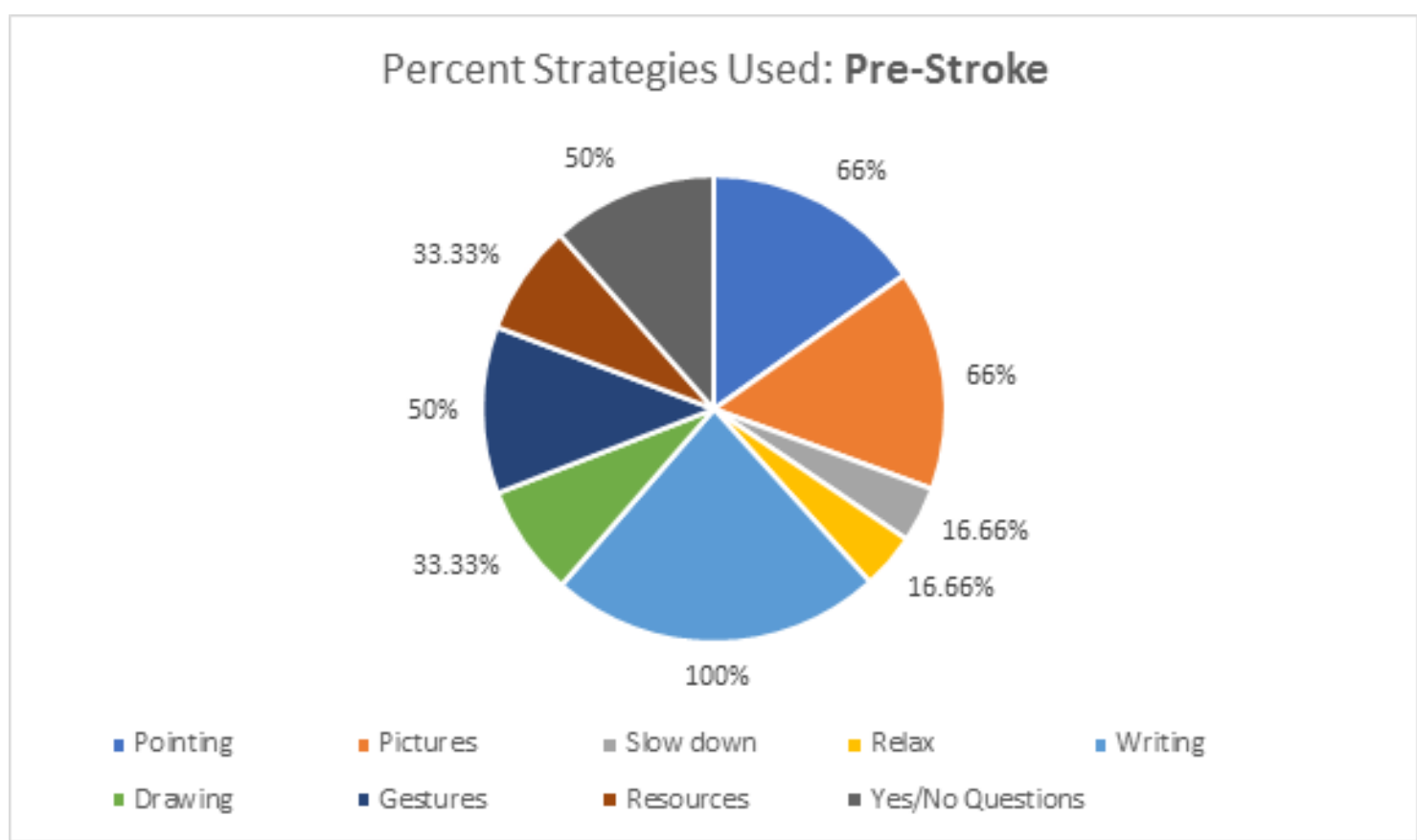
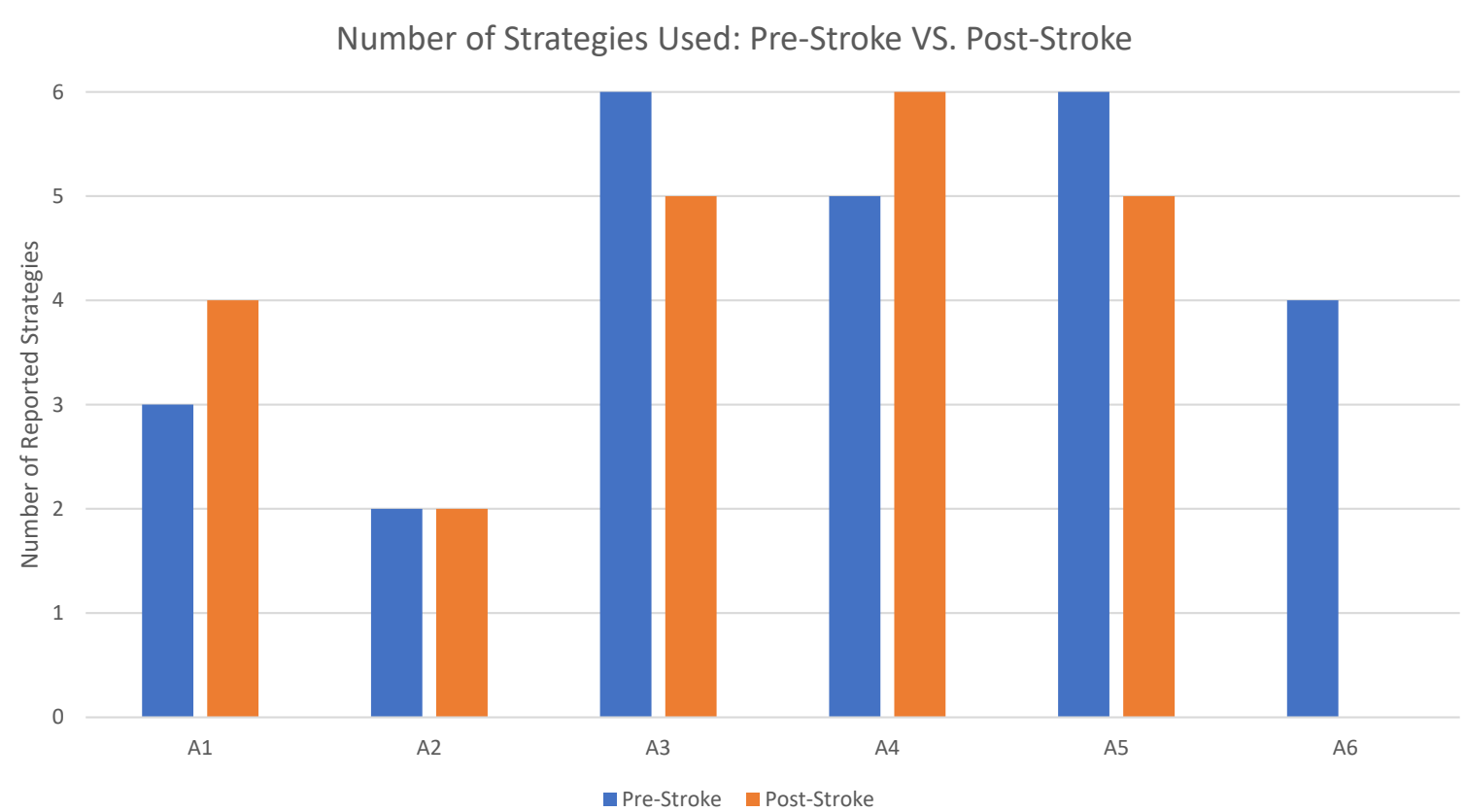


Participant Demographics

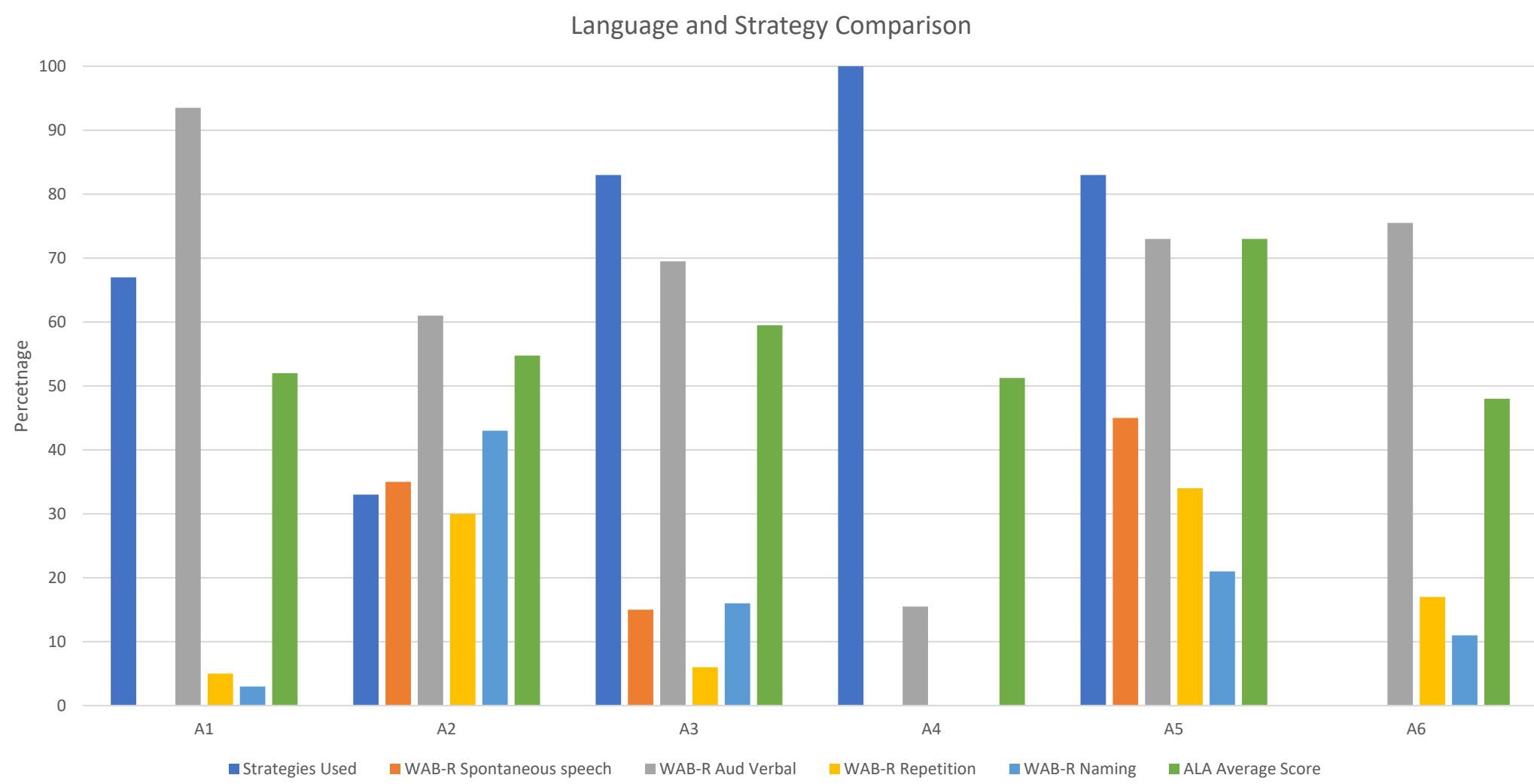
PSWA	1	2	3	4	5	6	Mean	SD
Age (y)	70	68	76	63	63	74	69	5.44
Gender	Male	Female	Male	Male	Female	Male		
Edu (y)	14	12	16	12	16	13	13.83	1.83
Type of Stroke	Hemorrhagic	Hemorrhagic	Ischemic	Atrofibration	Ischemic	Ischemic		
Type of Aphasia	Broca's	Wernicke's	Broca's	Global	Broca's	Broca's		
Aphasia Quotient	20.3	40.8	24.3	3.1	43.6	20.6	25.45	14.94
Severity	Very Severe	Severe	Very Severe	Very Severe	Severe	Very Severe		
Marital Status	Widowed	Married	Married	Married	Married	Married		

Results

- Question 1:**
 - The most reported strategies among participants pre-stroke: writing (100%), pointing (66%), and use of pictures (66%)
 - The most reported strategies among participants post-stroke: writing (66.66%), use of pictures (66.66%), pointing (50%), gestures (50%), and resources (50%).



- Question 2:**
 - 5/6 (83%) of participants with ALA scores above 50% (mostly positive life feelings) reported use of 2-6 communicative strategies
 - 1/6 (16%) of participants with ALA scores below 50% (mostly negative life feelings) reported use of 0 communicative strategies
 - 5/6 (83%) have naming skills and spontaneous speech abilities that are below the median scores, and they report using communicative strategies over 50% of the time.



References

- Johansson, M. B., Carlsson, M., & Sonnander, K. (2012). Communication difficulties and the use of communication strategies: from the perspective of individuals with aphasia. *International journal of language & communication disorders*, 47(2), 144-155.
- Nicholas, M., Sinotte, M. P., & Helm-Estabrooks, N. (2011). C-Speak Aphasia alternative communication program for people with severe aphasia: Importance of executive functioning and semantic knowledge. *Neuropsychological rehabilitation*, 21(3), 322-366.
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Discussion

- Question 1**
 - Strategy use pre-stroke:* 100% of participants reported use of communicative strategies.
 - Strategy use post-stroke:* 83% of participants reported use of communicative strategies.
 - Reported use of slowing down and staying relaxed during communicative situations remained the same from pre and post-stroke, while use of writing, resources, and yes/no questions decreased.
- Question 2**
 - Language severity:* Language severity in the areas of spontaneous speech and naming abilities as seen in participants (1, 3, 4, and 5) seems to be linked to increased communicative strategy use.
 - Quality of life:* Five out of six participants who reported mostly positive feelings about life participation and quality of life also reported using 2-6 communicative strategies. One participant had mostly negative feelings about life participation and quality of life, and did not report using any communicative strategies.

Conclusion

- Every person with severe aphasia is different in terms of skills and abilities, so it is important to implement patient-based therapy with an emphasis on life participation.
- Strategies change post-stroke in people with severe aphasia in terms of type and number of strategies.
- Language does not affect strategy use as much as other factors in people who have severe aphasia.
- Strategy use seen in PWSA who have deficits in spontaneous speech and naming abilities may indicate that communicative strategies are good compensatory strategies for PWSA who have these deficits.
- Limitations: We have a small sample size, so this makes our results less generalizable.

Future Direction

- We are excited to be doing research on people with severe aphasia, because there is not very much representation.
- The most challenging aspect has been our small sample of the population, because it has limited the generalization of our results and our methods of data analysis.
- We have additional research for ASHA, looking at care partner perspective of strategy use and cognition, and if cognition plays a role in strategy use for PWSA.

Acknowledgements

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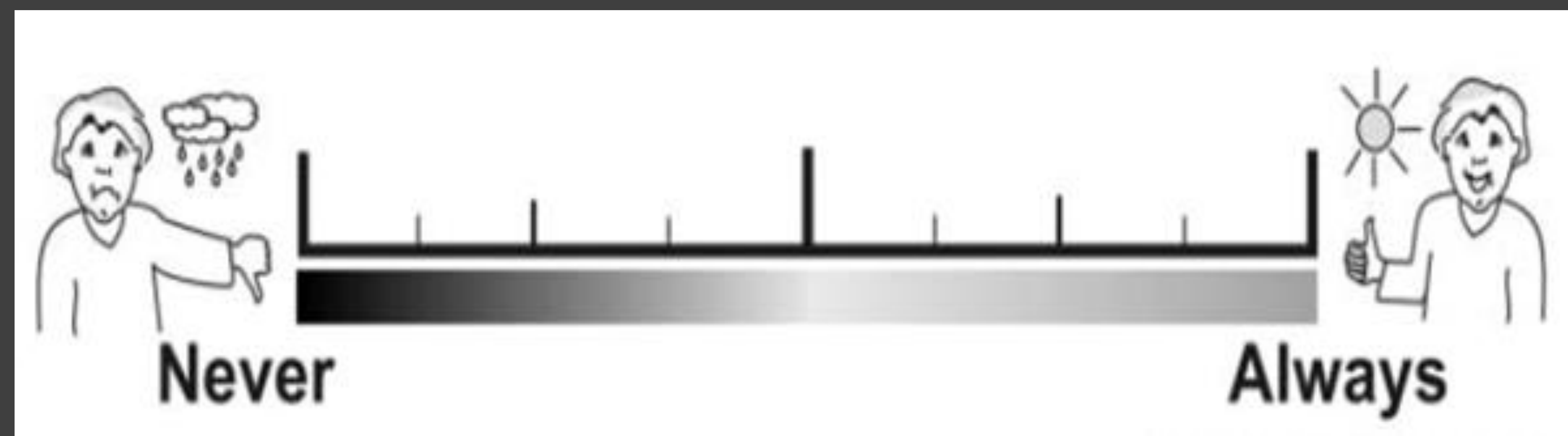
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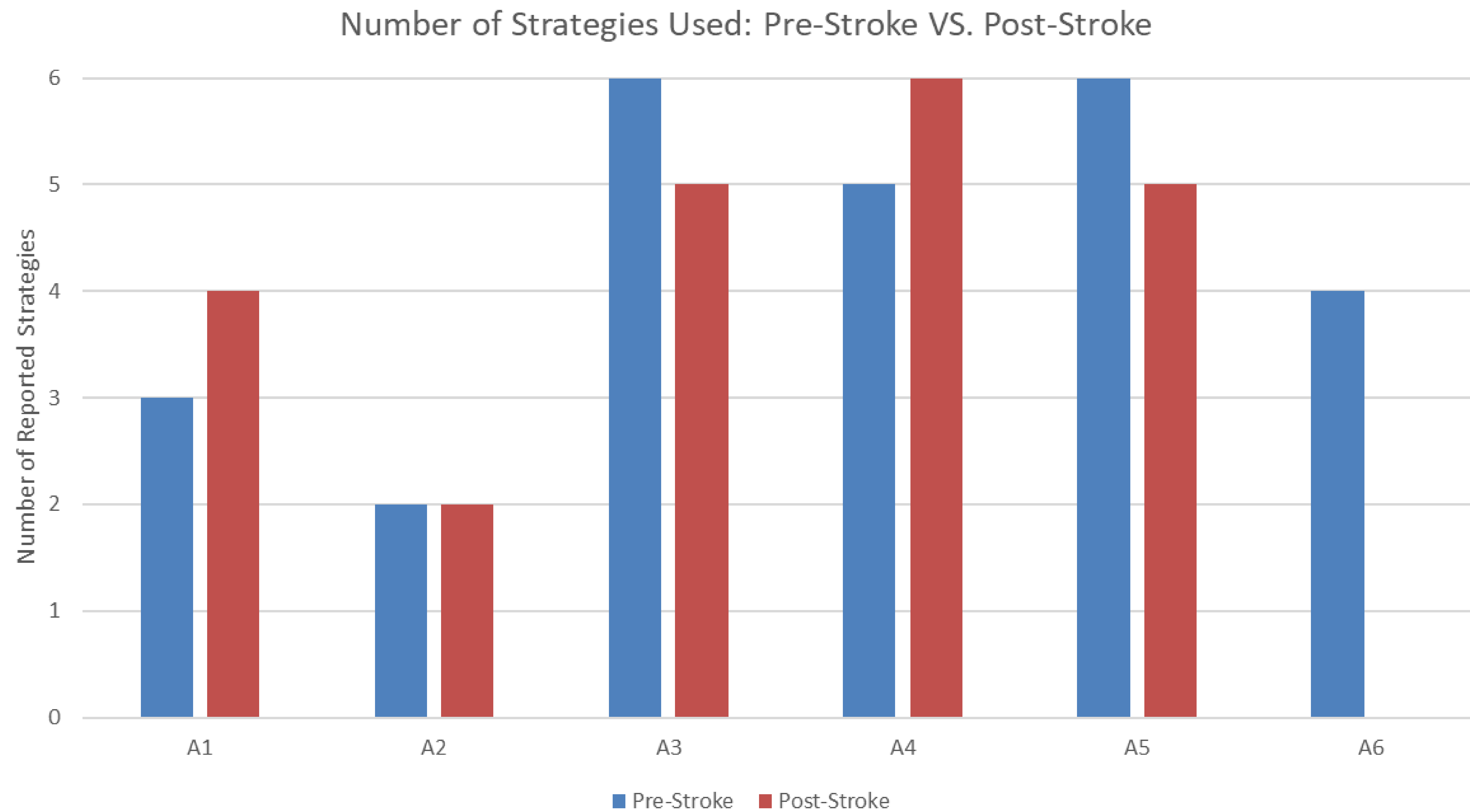
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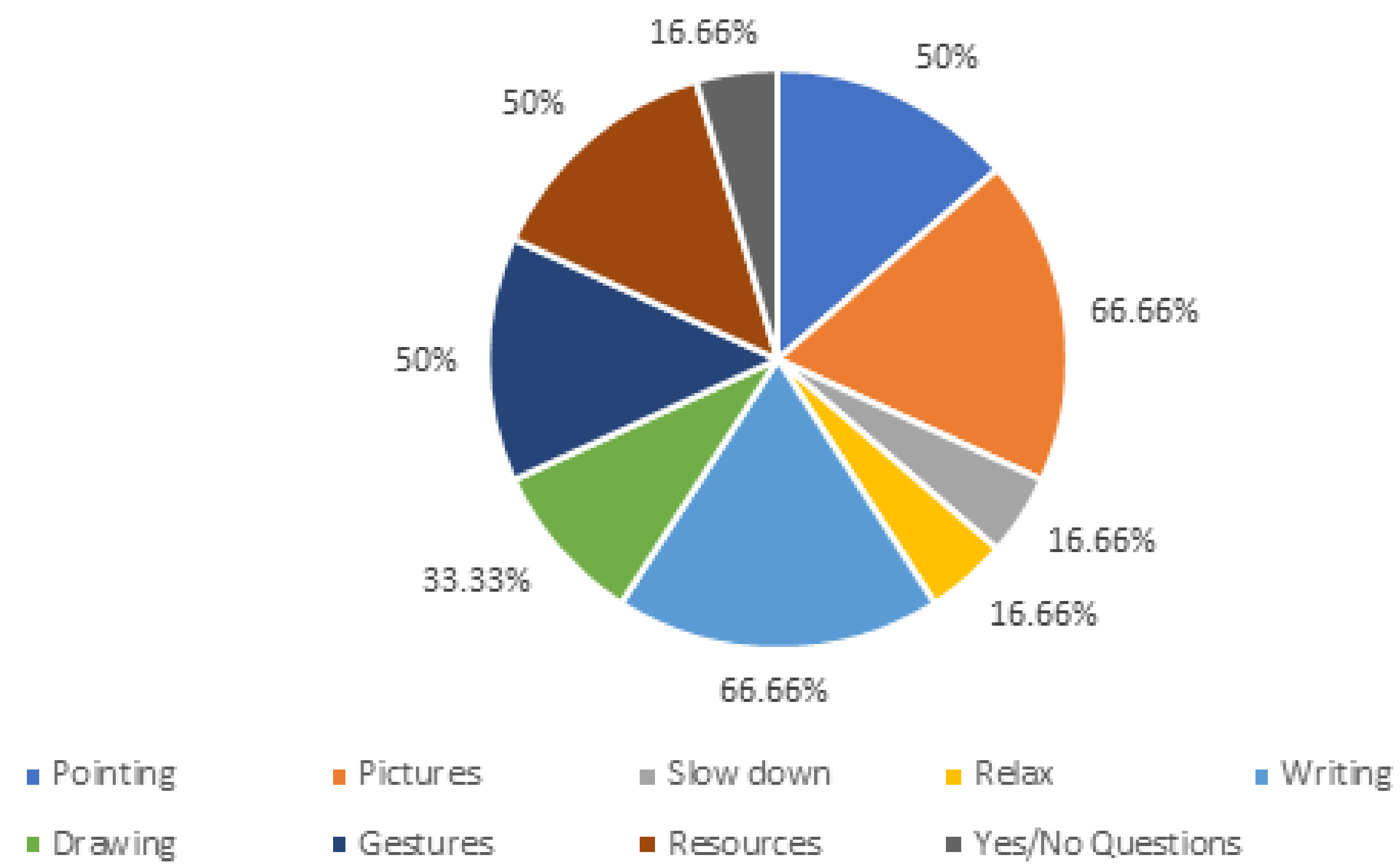
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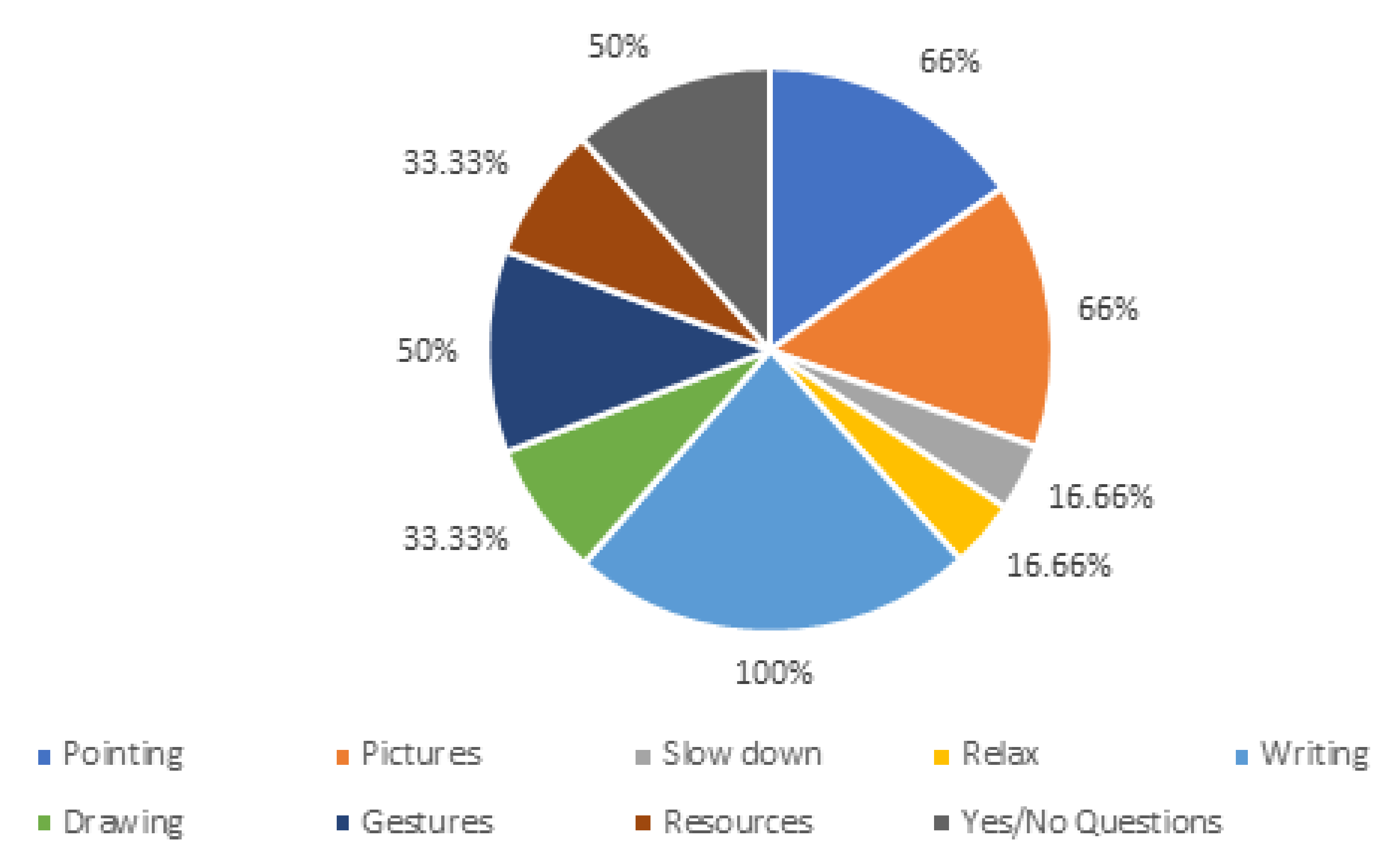


Results

Percent Strategies Used: **Post-Stroke**



Percent Strategies Used: **Pre-Stroke**



Results

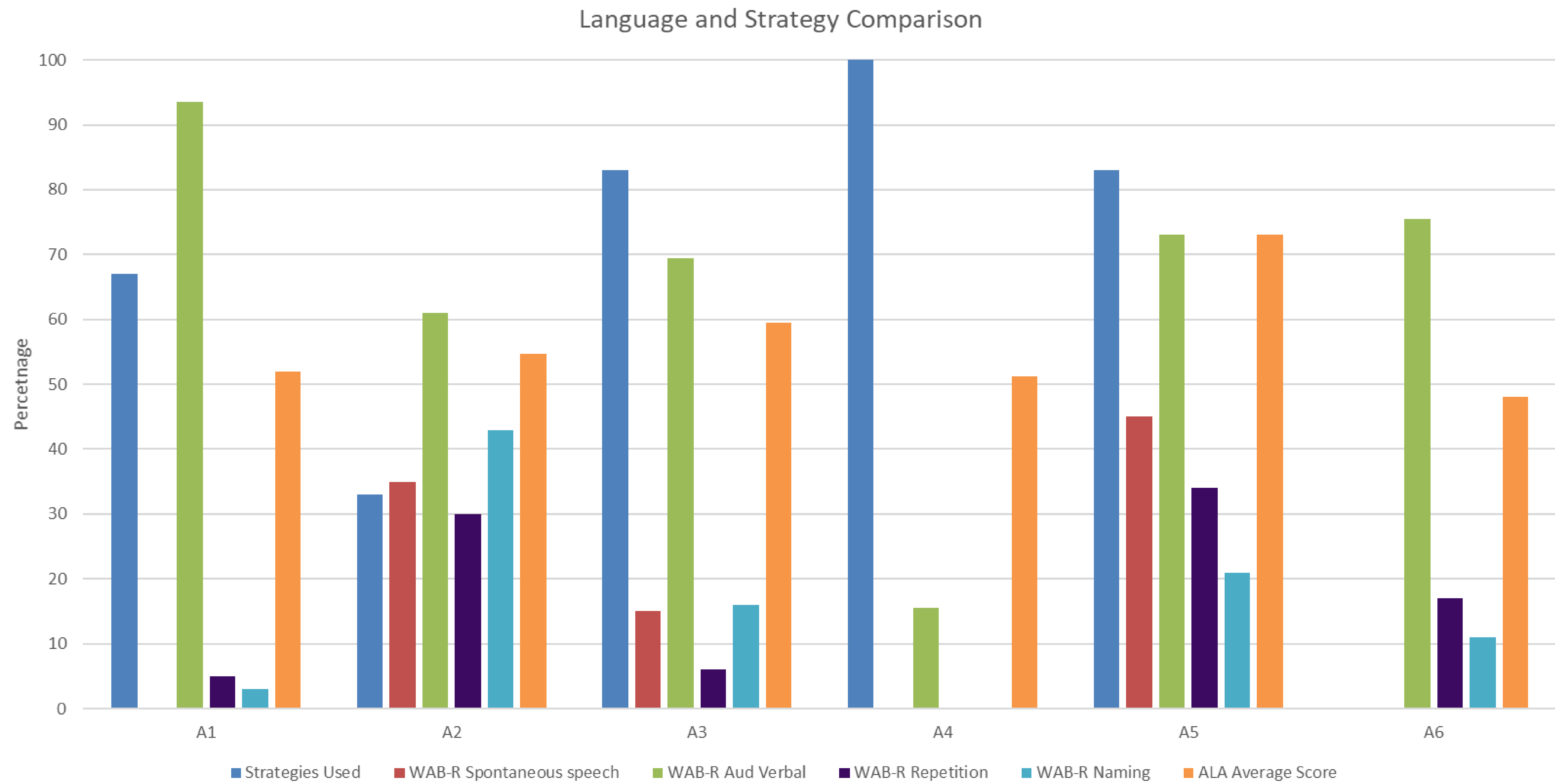
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