

REFERENCES

Abra, J. C. (1968). Acquisition and retention of consistent associative responses with varied meaningfulness & similarity of stimuli. *Journal of Verbal Learning & Verbal Behaviour*, 7, 647-652.

Barlow, D.H., & Hersen, M. (1984). *Single case experimental designs: Strategies for behaviour change.* 2nd edition. New York: Pergamon Press.

Barrett, A. M., Crucian, G. P., Schwartz, R. L., & Heilman, K. M. (2000). Testing memory for self-generated items in dementia: Method makes a difference. *Neurology*, 54(6), 1258–1264.

Beck, A.R., & Fritz, H. (1998). Can people who have aphasia learn iconic codes? *Journal of Augmentative & Alternative Communication*, 14, 184 -196.

Bertoni, B., Stoffel, A., & Weniger, D. (1991). Communicating with pictographs: A graphic approach to the improvement of communicative interactions. *Aphasiology*, 5, 341-353.

Beukelman, D.R., & Mirenda, P. (1992). Augmentative and alternate communication: Management of severe communication disorders in children and adults. 3rd edition.
Baltimore: Paul Brookes Publishing.

Brookshire, R.H. (2003). *An introduction to neurogenic communication disorders*. St Louis: Mosby-Tear Book Inc.

Chiaravalloti, N. D., & Deluca, J. (2002). Self-generation as a means of maximizing learning in multiple sclerosis: An application of the generation effect. *Archives of Physical Medicine & Rehabilitation*, 83, 8, 1070-1079.

Chiaravalloti, N. D., DeLuca, J., Moore, N. B., & Ricker, J. H. (2005). Treating learning impairments improves memory performance in multiple sclerosis: A randomized clinical trial. *Multiple Sclerosis*, 11, 1, 58-68.



Crutcher, R.J., & Healy, A.F. (1989). Cognitive operations and the generation effect. *Journal of Experimental Psychology: Memory & Cognition*, 4, 669-675.

Craik, F. I. M., & Lockhart, R.S. (1972). Levels of processing: A framework for memory research. *Journal of Verbal Learning and Verbal Behaviour*, 11. 671-684.

Cohen, J. (1977). *Statistical power analysis for the behavioural sciences*. New York: Academic Press.

Damasio, H. (2001). *Neural basis of language disorders*. In Chapey, R (ed). Language intervention strategies in aphasia & related neurogenic communication disorders, 18-36, (4th edition) Philadelphia: Lippincott Williams & Wilkins.

Dick, M.B., & Kean, M.L. (1989). Memory for internally generated words in Alzheimer-type dementia: Breakdown in encoding & semantic memory. *Brain & Cognition*, 9, 1, 88-108.

Donaldson, W., & Bass, M. (1980). Relational information and memory for problem solutions. *Journal of Verbal Learning and Verbal Behaviour*, 19, 26-35.

Funnel, E., & Allport, A. (1989). Symbolically speaking: communicating with Blissymbols in aphasia. *Aphasiology*, 3, 279-300.

Fuller, D.R. (1997). Initial study into the effects of translucency and complexity on the learning of Blissymbols by children and adults with normal cognitive abilities. *Augmentative & Alternative Communication*, 13, 1, 30-39.

Fuller, D. R., & Lloyd, L. L. (1987). A study of physical and semantic characteristics of a graphic symbol system as predictors of perceived complexity. *Augmentative and Alternative Communication*, 3, 26-35.



Fuller, D. R., & Lloyd, L. L. (1992). Effects of physical configuration on the pairedassociate learning of Blissymbols by preschool children with normal cognitive abilities. *Journal of Speech and Hearing Research*, 35, 1376-1383.

Gardiner, J.M. (1988). Generation and priming effects in word-fragment completion. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 14, 3, 495-501.

Gardiner, J.M., & Hampton, J.A. (1985). Semantic memory & the self-generation effect: some tests of the lexical activation hypothesis. *Journal of Experimental Psychology: Learning, Memory & Cognition,* 11, 4, 732-741.

Gardiner, J.M., & Rowley J.M.C. (1984). A generation effect with numbers rather than words. *Memory & Cognition*, 12, 443-445.

Garrett, K., & Beukelman, D. (1992). *Augmentative communication approaches for persons with severe aphasia*. In K. Yorkston (Ed.), Augmentative communication in the medical setting, 245-338. Tucson, AZ: Communication Skill Builders.

Ghatala, E.S. (1981). The effect of internal generation of information on memory performance. *American Journal of Psychology*, 94, 3, 443-450.

Glisky, E.L. & Rabinowitz, J.C. (1985). Enhancing the self generation effect through repetition of operations. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 11, 2, 193-205.

Goodglass, H. (2001). The assessment of aphasia & related disorders. 3rd edition. Lippincott Williams & Wilkins.

Goodglass, H., Kaplan, E., & Barresi, B. (2001). The Boston Diagnostic Aphasia Examination. 3rd edition. Lippincott Williams & Wilkins.

Goverover, Y., Chiaravalloti, N., Johnston, M., & DeLuca, J. (2005). Self-generation to improve learning of everyday functional tasks in multiple sclerosis & traumatic



brain injury. *Journal of the International Neuropsychological Society*, 11 (Suppl. 1), 49-59.

Graf, P. (1980). Two consequences of generating: Increased inter & intraword organization of sentences. *Journal of Verbal Learning & Verbal Behaviour*, 19, 316-327.

Hegde, M.N. (2003). *Clinical research in communication disorders*. *Principles & strategies*. 3rd edition. Texas: Pro-Ed.

Hirshman, E,. & Bjork, R.A. (1988). The generation effect: Support for a two-factor theory. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 14. 484-494.

Jacoby, L.L. (1978). On interpreting the effects of repetition: Solving a problem versus remembering a solution. *Journal of Verbal Learning & Verbal Behaviour*, 17, 649-667.

Johns, E.E., & Swanson, L.G. (1988). The generation effect with nonwords. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 14, 180-190.

Johannsen-Hornbach, H., Cegla, B., Mager, U., & Schempp, B. (1985). Treatment of chronic global aphasia with a nonverbal communication system. *Brain & Language*, 24, 74–82.

Kinjo, H., & Snodgrass, J.G. (2000). Does the generation effect occur for pictures. *American Journal of Psychology*, 113 (1), 95-121.

Kornell, N., & Terrace, H.S. (2007). The generation effect in monkeys. *Psychological Science*, 18 (8), 682-685.

Koul, R.K., & Corwin, M. (2003). *Efficacy of AAC intervention in individuals with chronic severe aphasia*. In Schlosser R.W (ed). The efficacy of augmentative &



alternative communication: Towards evidence- based practise (pp. 449-469). New York, London: Academic Press.

Koul, R.K., Corwin, M., & Hayes, S. (2005). Production of graphic symbol sentences by individuals with aphasia: Efficacy of a computer-based augmentative & alternative communication intervention. *Brain & Language*, 92 (1), 58-77.

Koul, R.K., & Harding, R. (1998). Identification and production of graphic symbols by individuals with aphasia: Efficacy of a software application. *Journal of Augmentative & Alternative Communication*, 14, 11-23.

Koul, R.K., & Lloyd, L.L. (1998). Comparison of graphic symbol learning in individuals with aphasia and right hemisphere brain damage. *Brain & Language*, 62, 394-421.

Lane, V.W., & Samples, J.M. (1981). Facilitating communication skills in adult aphasics: Application of Blissymbolics in a group setting. *Journal of Communication Disorders*, 14, 157–167.

Lengenfelder, J., Chiaravalloti, N. D., & DeLuca J. (2003). Examining the generation effect in individuals with traumatic brain injury. *Journal of the International Neuropsychological Society*, 8, 173-184.

Lipinska, B., Backman, L., Mantyla, T., & Viitanen, M. (1994). Effectiveness of selfgenerated cues in early Alzheimer's disease. *Journal of Experimental & Clinical Neuropsychology*, 16 (6), 809–819.

Luftig, R. L., & Bersani, H. A. (1985). An initial investigation of the effects of translucency, transparency, & component complexity of Blissymbolics. *Journal of Childhood Communication Disorders*, 8, 191–209.

Lutz, J., Briggs, A & Cain, K. (2007). An examination of the value of the generation effect for learning new material. *Journal of General Psychology*, 130 (2), 171-187.



Maxwell, D.L., & Satake, E. (2006). *Research and statistical methods in communication sciences and disorders*. New York: Thomson Delmar Learning.

McMillan, J. H., & Schumacher, S. (2001). *Research in education: A conceptual introduction* (5th Ed.). New York, NY: Longman.

McCall, D., Shelton, J.R., Weinrich, M., & Cox, D. (2000). The utility of computerized visual communication for improving natural language in chronic global aphasia: Implications for approaches to treatment in global aphasia. *Aphasiology*, 21, 8, 795-826.

McDaniel, M.A., Riegler, G.L. and Waddill, P.J. (1990). Generation effects in free recall: Further support for a three-factor theory. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 16, 789-798.

McElroy, L.A. & Slamecka, N.J. (1982). Memorial consequences for generating nonwords: Implications for semantic-memory interpretations of the self generation effect. *Journal of Verbal Learning & Verbal Behavior*, 21, 249-259.

McFarland C.E., Frey, T.J. & Rhodes, D.D. (1980). Retrieval of internally versus externally generated words in episodic memory. *Journal of Verbal Learning & Verbal Behaviour*, 19, 210-225.

Mitchell, D.B., Hunt, R.R., & Schmitt, F.A. (1986). The generation effect and reality monitoring: Evidence from dementia and normal aging. *Journal of Gerentology*. 41 (1), 79-84.

Multhaup, K. S., & Balota, D. A. (1997). Generation effects & source memory in healthy older adults and in adults with dementia of the Alzheimer type. *Neuropsychology*, 11 (3), 382-391.

Nairne, J.S., Pusen, C., & Widner, R.L. (1985). Representation in the mental lexicon: Implications for theories of the self generation effect. *Memory & Cognition*, 13, 2, 183-191.



Nairne, J.S., & Widner, R.L. (1987). Generation effects with nonwords: the role of test appropriateness. *Journal of Experimental Psychology: Learning, Memory, & Cognitio*, 13, 1, 164-171.

Nicholos, M., & Helm-Estabrooks, N. (1990). Aphasia: The efficacy of speechlanguage pathology intervention. *Seminars in Speech and Language*, 11, 135-144.

O'Brien, A., Chiaravalloti, N., Arango-Lasprilla, J.C., Lengenfelder, J., & DeLuca, J. (2007). An investigation of the differential effect of self-generation to improve learning and memory in multiple sclerosis and traumatic brain injury. *Neuropsychological Rehabilitation*, 17 (3), 273-292.

Payne, D.N., Neely, J.H. & Burns, D.J. (1986). The self generation effect: further tests of the lexical activation hypothesis. *Memory & Cognition*, 14 (3), 246-252.

Peynircioglu, Z.F. (1989). The generation effect with pictures and nonsense figures. *Acta Psychologica*, 70, 153-160.

Pring, L., Freestone, S.F., & Katan, S.A. (1990). Recalling pictures and words:Reversing the generation effect. *Current Psychology: Research & Reviews*, 9 (11), 35-45.

Sawyer-Woods, L. (1987). Symbolic function in a severe non-verbal aphasic. *Aphasiology*, 1, 287-290.

Schlosser, R.W. (2003). *The Efficacy of Augmentative & Alternative Communication: Towards evidence- based practise*. California: Elsevier Science.

Scwartz, M., & Walsh, M.F. (1974). Identical subject-generated and experimentersupplied mediators in paired-associate learning. *Journal of Experimental Psychology*, 103, 878-884.



Shelton, J.R., Weinrich, M., McCall, D., & Cox, D.M. (1996). Differentiating globally aphasic patients: data from in-depth language assessments and production training using C-VIV. *Aphasiology*, 10 (4), 319-342.

Slamecka, N.J., & Graf, P. (1978). The self generation effect: Delineation of a phenomenon. *Journal of Experimental Psychology: Human Learning & Memory*, 4, 592-604.

Souliez, L., Pasquier, F., Lebert, F., Leconte, P., & Petit, H. (1996). Generation effect in short term verbal and visuospatial memory: Comparisons between dementia of the Alzheimer type and dementia of the frontal lobe type. *Cortex*, 32, 347–356.

Steele, R., Weinrich, M., Wertz, R., Kleczewska, M., & Carlson, G. (1989).Computer-based visual communication in aphasia. *Neuropsychologia*, 27, 409-426.

Tyler, S.W., Hertel, P.T., McCallum M.C., & Ellis, H.C. (1979). Cognitive effort and Memory. *Journal of Experimental Psychology: Human Learning & Memory*, 4, 592-604.

Weinrich, M., Shelton, J.R., McCall, D., & Cox, D.M. (1997). Generalization from single sentence to multisentence production in severely aphasic patients. *Brain & Language*, 58, 327-352.

Weinrich, M., McCall, D, Weber, K.T., Thomas, K., & Thornburg, L. (1995). Training on an iconic communication system for severe aphasia can improve natural language production. *Aphasiology*, 9 (4), 343-64.



APPENDICES

Appendix 1

Numbered List of Fuller's(1997) 40 symbols

High Translucency-High Complexity Symbols

1		6	$-\overleftrightarrow_{\text{Love}}^{\wedge}$
2	හැනහ ි Bus	7	Pizza
3	Car	8	∧ →→□ Push
4	Chin	9	Ö!! Surprise
5		10	



High Translucency-Low Complexity Symbols

11	ഹ	16	Q
	apple		girl
12	5	17	^
	banana		iump
13	\cup	18	,p
	bowl		
14		19	open
			FJ
	dish		stamp
15		20	
	P flag		teeth



Low Translucency-High Complexity Symbols

21	birthday	26	2 sister
22	Coke	27	sleep
23	o)¢↑ cookie	28	
24	Ź↑ pancake	29	v m thirsty
25		30	



Low Translucency-Low Complexity Symbols

31	Ô	36	ks <
	eat		muscle
32	<u>o</u>	37	name
	food	• •	
33	grass	38	l >
34	head	39	policeman
35	∧ ↓ ↓	40	↓ 工 small



Appendix 2a Symbol Set 1

H-high, L-low, T-translucency, C-complexity

НТНС		HTLC	
කකුතු	<u>o</u> ⊗	G	\cup
2. bus	7. pizza	11. apple	13. bowl
$\nabla \nabla$	LTHC	¢↑	€ ∽
20. teeth	22. coke	24. pancake	25. popcorn
∕∆ 2		(ک ک
26. sister	31. eat	33. grass	36. muscle
ÒQ	ΓΛ		
37. name	39. policeman		



Appendix 2b Symbol Set 2

H-high, L-low.	T-translucency.	C-complexity
II III 511, L 1017,	i dumbraceney,	e complexity

НТНС		HTLC	
ක්	^ 	5	
3. car	8. push	12. banana	14. dish
$\overset{\wedge}{\frown}$		ô	\$\$
17. jump	21. birthday	27. sleep	28. sock
Ď-@	Q		
29. thirsty	32. food	34. head	35. lie
\ >	Ť		
38. off	40. small		



Appendix 3a

Connect-the-Dot Illustrations













Appendix 3b Examples of the Blissymbol Cards







Appendix 4 Symbol Rating Instructions

BOOKLET 1 TRANSLUCENCY

In this booklet you have to evaluate 40 symbols. The symbol and its representative word is given in the tables in this booklet. You are required to think about how related the symbol and the word it represents is. The word the symbol stands for is written below the symbol. Please try to locate the symbols and the representing words now. If you think the word is very strongly related to the symbol, then tick 1. If you feel the word and the symbol is definitely unrelated, tick 7. Use the numbers between 1 and 7 to rate various levels of the relationship between the word and the symbol. You may use a number more than once. Do you have any questions? Please start rating all 40 symbols now.

BOOKLET 2 FAMILIARITY

In this booklet you are required to make judgements regarding how familiar you are with the words provided. A word is provided in column one and is numbered from 1 to 40. Please locate this now. If you know the word and it is very familiar to you, tick 1. If you think the word is unknown and very unfamiliar to you, tick 7. Use the numbers between 1 and 7 to rate the various degrees of your familiarity with the word. You may use a number more than once. Please work slowly and rate all the words. Lets begin rating all the symbols now.

BOOKLET 3 FREQUENCY OF USE

In this booklet you are required to make judgements regarding how often we use some words as opposed to others in everyday life. A word is provided in column one and is numbered from 1 to 40. Please locate this now. If you think we use the word often, tick 1. If you think the word is not used often, tick 7. Use the numbers between 1 and 7 to rate the various degrees of use of the word. You may use a number more than once. Please work slowly and rate all the symbols. Do you have any questions? Lets begin to rate all the words now.



Appendix 5a The Pointing and Receptive Language Test

Example of Grid





Appendix 5b The Visual Discrimination Test





Appendix 5 c The Connect-the Dot Execution Test





Appendix 6a

Example of a Probe Grid for Set 1

Symbol Set 1 page 1







Probe Grid Set 1 page 2



Appendix 6b

Example of a Probe Grid for Set 2

SET 2 page 1







Probe Grid Set 2 page 2



Appendix 7a Probe Measure Scoring Form SYMBOL SET 1

SCORE:

Number of symbols correctly identified: ____ Number of symbols incorrect: ____

Symbol and Referent	Score	Symbol & Referent	Score	Symbol and Referent	Score	Symbol & Referent	Score
ଷଷଷ		<u>o</u> 🛞		৵		Ø	
bus		pizza		coke		name	
\bigcirc		<u>ح</u> ا		~~		(
bowl		muscle		teeth		grass	
¢↑				~		S	
pancake		popcorn		<u>0</u>		apple	
☆2		$ \wedge$		eat			
sister		policeman					



Appendix 7b

Probe Measure Scoring Form

SYMBOL SET 2

PARTICIPANT NO:.....Probe Label:....Probe Label:.... TREATMENT TYPE:....SESSION: Procedure: Score a 1 for each symbol correctly identified. Score a 0 if incorrectly identified. Tally total number of correctly identified symbols. Instructions: "Please point to the symbol that you think matches the word I say. Do you understand? Lets start. Show me" SCORE:

Number of symbols correctly identified:____ Number of symbols incorrect:____

Symbol and	Score	Symbol &	
Referent		Referent	Score
^		6	
\sim		\mathbf{D}	
jump		banana	
Ô		Ŏ-@	
sleep		thirsty	
Q		8 88	
food		car	
^			
L1		Ĥ	
lie		head	

Symbol and Referent	Score	Symbol & Referent	Score
		Q*	
push		birthday	
\checkmark		\	
dish		off	
		v	
⋬୵∿		I	
sock		small	



Appendix 8a Inter-Rater Procedure Instructions to Raters

1. Translucency Rating

You are presented with pairs of symbols together with their referents. You are asked to rate how well matched the symbol pairs presented to you are in terms of their TRANSLUCENCY that is to compare how well the symbol pairs presented to you are related to their referents. If you feel the symbols are both equally related to their referents, that is, they are both the same in terms of their translucency, allocate the pair a 7. However, if you feel that the pair of symbols are different in terms of their translucency, that is not equally related to their referents, then allocate the pair a 1. Use the numbers between 1 and 7 to rate the relatedness of symbol pairs to their referents.

2. Frequency of Use

Now you are presented with pairs of symbol referents. You are now required to evaluate the symbol referent pairs for how often they are used in everyday life. If you feel both symbol referents in the pair share an equal level of use in everyday life, allocate the symbol pair a 7. However, if you feel the symbol referent pairs do not share an equal level of use in everyday life, that is one referent maybe used more often than the other, allocate the pair a 1. Use the numbers between 1 and 7 to rate the various levels of perceived use of the referent.

3. Familiarity

Now you are presented with pairs of symbol referents. You are now required to rate how well matched the symbol referent pairs are in terms of their familiarity to you. If you know both symbol referents in the pair equally well, rate the pair a 7. However, if you know one symbol referent more or less than the other, then rate the symbol pairs a 1. Use the numbers between 1 and 7 to rate the various levels of perceived familiarity between the symbol referents in the pair.

Appendix 8b Likert Scale for Inter-Rater Procedure: Frequency of Use Rating Familiarity Rating

		RATING						
		1	2	3	4	5	6	7
No.	REFERENT							
1	bus							
	car							
2	pizza							
	push							
3	apple							
	banana							
4	pizza							
	pancake							
5	teeth							
	jump							
6	dish							
	bowl							
7	eat							
	cookie							
8	coke							
	popcorn							
9	pancake							
	birthday							
10	sister							
	sleep							
11	sock							
	thirsty							
12	toothbrush							
	cookie							
13	eat							
	head							
14	toothbrush							
	jump							
15	grass							
	off							
16	sock							
	dish							
17	lie							
	name							
18	muscle							
	small							
19	policeman							
-	food							
20	teeth							
	cookie							

Appendix 8c Likert Scale for Inter-Rater Procedure: Translucency Rating

	Symbol Pair		RATING					
	-	1	2	3	4	5	6	7
1	ଞ୍ଚଛ୍ଡରି							
	Bus							
	88							
	Car							
2	<u>o</u> 🛞							
	Pizza							
2								
3	C)							
	apple							
	\mathbf{b}							
	banana							
4	0 80							
	Pizza							
	ت کے pancake							
5	I ······							
5	tooth							
	^							
	\sim							
6	jump							
U	dish							
	\cup							
	bowl							

7	Ô				
	eat ∽ø↑				
	cookie				
8	⊉¢				
	coke				
	Popcorn				
9	@↑ pancake				
	birthday				
10	2 aiston				
10	Ô				
	sleep				
11	\$\$				
	sock				
	thirsty				
	Щ				
12	toothbrush				
	o)ピー cookie				
13	^				
	eat				
	head				

14	H∕ toothbrush				
	∕∼ jump				
15	grass off				
16	sock dish				
17	name				
18	muscle T small				
19	policeman O food				
20	vv teeth ovØ↑ cookie				

Appendix 9 Inter-Rater Checklist for Treatment Reliability

Thank you for taking the time to complete this checklist. Your task is to evaluate the treatment procedures used during the experimental sessions. Three video recorded sessions have been randomly selected for your review. Kindly watch the video and then work through the checklist. You are required to tick YES or No for each question.

Rating Parameters	YES	NO
TRAINING PROCEDURES		
A. Self-Generation (SG)Strategy		
1. Presents complete symbol and dot drawing together?		
2. Instructions given on how to complete dot drawing?		
3. Complete symbol remains in view for reference?		
4. Where any construction cues given?		
5. Where any understanding cues given?		
6. Where all 14 symbols presented for completion?		
7. Did the exposure time exceed one minute?		
B. Non-generation (NG) Strategy		
8. Presents only complete symbol picture		
9. Referents name given.		
10. Instruction given to examine symbol?		
11. Where all 14 symbols presented?		
12. Where any understanding cues given?		
13. Was a maximum of one minute exposure time to each symbol allowed?		
PROBE MEASURES		
14. Have any cues being given to aid symbol identification during probe measures?		
15. Where all 14 symbols tested for identification?		
16. Using the recognition probe score form provide. Score the participants recognition levels. Now compare it to the previous examiners scores. Does your own score and the examiners score match?		

Appendix 10 Letter of Consent

Centre forSentrum virAugmentative andAanvullende enAlternativeAlternatieweCommunicationKommunikasie&INTERFACE

T-Systems Age of Innovation & Sustainability Awards: Excellence in Innovation and Sustainability: Social

Rolex Award for Enterprise: Associate Laureate

National Science & Technology Awards: Corporate Organization

Shirley McNaughton Award for Exemplary Communication

Education Africa Presidential Award for Special Needs

received from the International Society for Augmentative and

University of Pretoria

website: http://www.up.ac.za/academic/caac

Fax/Faks: (012) 420 - 4389

Tel: (012) 420 – 2001 E-mail: erna.alant@up.ac.za Faculty of Education / Fakulteit Opvoedkunde Centre for Augmentative and Alternative Communication Sentrum vir Aanvullende en Alternatiewe Kommunikasie University of Pretoria, Lynnwood Road

Date

over the last ten years.

Alternative Communication

2004

2003

2002:

1998

1995:

Dear.....,

I am currently completing a PhD in Alternate and Augmentative Communication at the University of Pretoria, Center for Alternate and Augmentative Communication (CAAC) under the supervision of Professor Erna Alant (TEL: 012 4204001).

The title of my research study is *The Application of the Self-Generation Effect to the Learning of Blissymbols by persons with Severe Aphasia*. I will be testing how the method of self-generation can help a person with severe aphasia learn symbols which then can be used to aid communication.

This letter seeks to obtain your consent for your or your spouse's/partner's/parent's participation in this research study.

Should you agree, the participant will be involved in approximately four sessions with me which will be conducted at Headway or any other venue that is most convenient to you including homevisits. There will be no charges for these sessions. Additionally, full confidentially will be maintained. At no time will your name or contact details be divulged. The study sessions will have the format of a typical speech therapy session. A short description of the sessions will now follow:

• Session 1 (approximately 45 mins): Basic screening assessment will be conducted in order to describe the speech-language difficulty and to determine eligibility for participation in the study,

- Session 2(approximately 1 hr): Training on learning 15 new symbols using two different therapy methods or approaches. This will include a short test following training to see how many symbols were learnt.
- Session 3(approximately 1 hr): This must occur 2 days after session 2. Includes re-training to learn same 15 symbols using two approaches. Testing to follow training.
- Session 4(approximately 1 hr): This must occur 7 days following session 2. Includes final training to learn the same 15 symbols with a testing procedure following training.

The materials I will be using during these sessions include symbol picture cards and symbol picture grids. The participant will be asked to complete a connect-the-dot picture of some symbols. At no time will the participant be exposed to any physical harm during the sessions. Family members are welcome to observe sessions which will be fully video recorded.

I do hope you will agree to participate in this study. The results will definitely go towards helping us understand how persons with severe aphasia can best be assisted by alternate forms of communication. My results will be shared with you as soon as it becomes available.

Looking forward to working together with you in this regard.

Thanking you

Priya Rajaram B.Sp and Hearing (UDW), M.ECI (UP) Audiologist and Speech Therapist Parklands Hospital TEL: 031-2081014/ 0722712270

Please sign to acknowledge consent of your or your spouse/ partner's participation.

Participants Name:	••
lign:	
pouse/Partners Name:	
lign:	
Date:	