

Appendix 11 Composite list of sign ratings

(Note: -Grammatical categories: M = Miscellaneous, D = Descriptor, V = Verb, N=Noun
- Translucency ratings: L= Low translucency (1-3), H = High translucency (5-7)
- Performance difficulty scores and graphics (sign illustration) scores: Colour coding of scores used to facilitate equal distribution across theme probe sets: red = 1-2.9; blue = 3-3.9, purple = 4-4.9)

Sign	Grammatical category (Theme number)	Translucency \bar{X} (L, H)	Performance difficulty \bar{X}	Graphics score \bar{X}
1. WHO	M1	2.466 (L)	5.954	5.277
2. WHAT	M2	2.866 (L)	6.136	6.000
3. WHICH	M2	2.466 (L)	5.652	5.350
4. WHEN	M3	2.482 (L)	5.826	5.050
5. WHY	M3	2.433 (L)	5.956	4.6667
6. SORRY	M3	2.933 (L)	5.782	5.833
7. NO	M2	5.966 (H)	6.652	5.500
8. IN	M4	6.000 (H)	5.913	6.222
9. VISIT	V1	2.266 (L)	4.217	4.833
10. WANT	V1	2.200 (L)	4.227	3.600
11. COME	V1	6.533 (H)	6.565	6.250
12. GO	V1	5.033 (H)	6.434	5.400
13. DON'T	V1	6.000 (H)	6.000	6.111
14. FRY	V2	2.600 (L)	4.608	3.555
15. EAT	V2	6.766 (H)	6.695	6.470
16. COOK	V2	5.900 (H)	6.043	4.333
17. THROW	V2	5.700 (H)	6.043	5.388
18. CALL	V2	5.733 (H)	5.304	5.500
19. LOOK	V2	6.300 (H)	5.636	5.500
20. GIVE	V2	5.866 (H)	5.695	5.944
21. WASH	V2	6.766 (H)	6.086	5.000
22. OPEN	V2	5.366 (H)	5.478	4.705
23. HAPPEN	V3	2.133 (L)	3.130	4.352
24. SHARE	V3	3.066 (L)	4.086	3.631
25. CAN'T	V3	2.066 (L)	2.956	2.187
26. HAVE	V3	2.966 (L)	5.869	4.411
27. BEHAVE	V3	2.366 (L)	3.652	4.352
28. BUY	V3	2.366 (L)	3.782	3.250
29. STAY	V3	5.566 (H)	6.217	5.500
30. LISTEN	V3	6.758 (H)	6.130	6.444
31. WATCH	V3	5.000 (H)	5.739	4.944
32. KEEP	V3	5.000 (H)	5.043	3.944
33. STOP	V3	5.166 (H)	5.826	5.055
34. TOUCH	V3	5.533 (H)	5.545	5.555
35. PLAY	V4	3.000 (L)	5.217	4.833
36. DO	V4	2.533 (L)	4.608	4.588
37. TRY	V4	2.300 (L)	3.869	4.611
38. USE	V4	2.400 (L)	4.782	3.500
39. SLEEP	V4	6.700 (H)	6.826	6.888
40. WAKE-UP	V4	5.633 (H)	5.727	5.350
41. CLOSE	V4	5.034 (H)	5.500	5.666



Sign	Grammatical category (Theme number)	Translucency \bar{X} (L, H)	Performance difficulty \bar{X}	Graphics score \bar{X}
42. HUG	V4/N	6.433 (H)	6.347	6.277
43. NICE	D1	3.000 (L)	4.869	4.055
44. OLD	D1	2.600 (L)	5.521	5.500
45. CLEAN	D1/V	2.500 (L)	4.304	4.350
46. GOOD	D1	6.266 (H)	6.800	6.826
47. NEW	D1	1.566 (L)	3.590	2.500
48. LATE	D1	1.833 (L)	4.826	4.722
49. DIRTY	D1	1.466 (L)	4.347	4.277
50. WARM	D1	2.300 (L)	4.391	3.722
51. SLOW	D1	2.833 (L)	5.304	5.666
52. COLD	D1	5.233 (H)	6.000	5.333
53. ENJOY	D2//V	3.066 (L)	6.304	4.222
54. THIRSTY	D2	5.100 (H)	6.086	5.944
55. NAUGHTY	D3	2.566 (L)	5.869	4.944
56. GREEDY	D3	3.066 (L)	4.739	4.722
57. JEALOUS	D3	2.233 (L)	4.869	5.111
58. BAD	D3	2.966 (L)	5.173	4.055
59. INSIDE	D3	6.000 (H)	5.434	6.111
60. NOW	D3	6.300 (H)	6.347	6.421
61. .NEXT	D3	5.466 (H)	5.347	5.600
62. AFTER	D3	5.133 (H)	5.304	3.666
63. SLOW	D1	2.833 (L)	5.304	5.666
64. QUIET	D3	5.133 (H)	6.391	6.444
65. AGAIN	D4	3.033 (L)	5.043	4.333
66. EARLY	D4	2.275 (L)	3.909	4.055
67. TIRED	D4	2.620 (L)	5.391	4.900
68. EASY	D4	2.600 (L)	5.217	3.944
69. CLEVER	D5	5.266 (H)	6.260	6.294
70. UP	D4	6.633 (H)	6.304	6.444
71. WEEK-END	N1	2.333 (L)	4.260	3.555
72. HOLIDAY	N1	2.033 (L)	4.913	5.333
73. FATHER	N1	2.133 (L)	5.782	6.00
74. FRIEND	N1	2.733 (L)	5.739	4.833
75. NEIGHBOUR	N1	2.466 (L)	4.652	3.722
76. UNCLE	N1	1.600 (L)	5.217	5.388
77. AUNT	N1	1.666 (L)	5.086	5.500
78. MOVIES	N1	2.166 (L)	3.913	4.600
79. SHOPPING	N1	3.033 (L)	5.217	4.166
80. TOWN	N2	2.400 (L)	3.652	3.055
81. PARTY	N1	2.400 (L)	3.826	3.333
82. SHOES	N1	2.400 (L)	4.913	4.777
83. SATURDAY	N1	1.466 (L)	5.190	4.944
84. SUNDAY	N1	1.733 (L)	5.045	4.722
85. LUNCH	N2	2.275 (L)	5.043	4.722
86. SUPPER	N2	2.200 (L)	5.391	4.722
87. BREAKFAST	N2	2.233 (L)	5.652	4.250
88. CAKE	N2	2.900 (L)	5.521	5.222
89. BISCUITS	N2	2.266 (L)	5.391	5.555
90. CHICKEN	N2	2.333 (L)	4.347	4.277
91. SUGAR	N2	2.666 (L)	4.590	4.388
92. STOVE	N2	1.833 (L)	3.913	2.750
93. CHAIR	N2	2.333 (L)	5.043	5.00
94. POTATOES	N2	3.033 (L)	4.608	2.764



Sign	Grammatical category (Theme number)	Translucency \bar{X} (L, H)	Performance difficulty \bar{X}	Graphics score \bar{X}
95. RICE	N2	3.066 (L)	5.217	4.300
96. SALT	N2	5.133 (H)	5.869	4.777
97. MILK	N2	6.100 (H)	5.565	5.000
98. TEA	N2	5.900 (H)	5.313	5.666
99. 1	N2	6.900 (H)	6.869	6.625
100. HOME	N3	6.900 (H)	4.913	5.555
101. TRAFFIC	N3	2.766 (L)	4.173	4.333
102. SISTER	N3	2.000 (L)	5.695	5.500
103. GRANDMOTHER	N3	2.433 (L)	4.863	5.333
104. SWEETS	N3	2.133 (L)	5.826	5.555
105. AFTERNOON	N3	3.000 (L)	4.260	4.833
106. YOU	N3	6.766 (H)	6.956	6.111
107. TIME	N3	6.900 (H)	6.782	6.125
108. TV	N3	5.033 (H)	5.521	3.142
109. WE	N3	5.466 (H)	5.608	4.333
110. TODAY	N3	5.633 (H)	6.347	6.176
111. MY	N3	6.466 (H)	6.695	6.555
112. CLOTHES	N3	5.166 (H)	5.565	5.250
113. JACKET	N3	5.551 (H)	5.636	5.333
114. HOME-WORK	N4	2.433 (L)	4.347	5.529
115. TOILET	N4	1.866 (L)	5.521	5.722
116. READY	D4	2.500 (L)	3.782	3.684
117. HOT	D4	5.333 (H)	5.652	6.058
118. HOUR	D4	5.100 (H)	4.521	4.500
119. BEDTIME	N4	6.533 (H)	5.478	6.000
120. LIGHT	N4	5.700 (H)	6.130	4.950
121. KISS	N4 /V4	5.433 (H)	5.391	5.555
122. O'CLOCK	N4	5.133 (H)	4.260	4.125
TOTALS		L= 70 (57%) H= 52 (43%)	>5 (easy) = 83 (68%) 4 - 4.9 (average) = 27(22%) 1 - 3.9 (difficult) = 12(10%)	>5 (easy) = 62 (51%) 4 - 4.9 (average) = 40(33%) 1 - 3.9 (difficult) = 20 (16%)

Appendix 12

Description of sign parameters

Instructions:

Please observe the signs in the video and note the features of the signs. Place a tick in the appropriate column for the following characteristics:

1) Number of hands:

- 1 or 2

2) Symmetry (in two handed signs only):

- Symmetrical = both hands have the same shape and perform the same movement (can be at different locations or different phases of the same type of movement.

- Asymmetrical = the signs have different hand positions or different movements.

3) Contact (touch):

- No contact = no body or hand contact during sign production

- Contact: if the one hand touches the other hand or another part of the body during sign production

4) Visibility:

- The sign is within the field of the visual signer, without the need for head or eye movements – even if just a part of the sign.

5) Movement: If there is movement in any part of the production of the sign. Placing a sign in the location is not considered movement.

6) Complexity: Meet one of the following criteria to be complex:

a) Change of location

b) Change in handshape

c) Combination of two signs

7) Handshapes

Easy: Stage I & Stage II handshapes): A, S, L, baby O, 5, C, G, B, F

Medium: Stage III handshapes: I, D, Y, P, 3, V, H, W

Hard: Stage IV & Stage V handshapes: 8, 7, X, T, R, M, N, E

Practice Signs

Sign	No. of hands		Symmetry			Contact (C or Nc)		Visibility (V or Nv)		Movement (M or Nm)		Complexity (C-l, C-h)				Handshapes (easy, medium, hard)		
	1	2	n/a	S	As	C	Nc	V	Nv	M	Nm	n/a	C-l	C-h	2 signs	Easy:	Medium:	Hard:
HELLO	1	2	n/a	S	As	C	Nc	V	Nv	M	Nm	n/a	C-l	C-h	2 signs	Easy: ASL,baby O 5 C G; B, F	Medium: IDYP3WV H	Hard: EMN 87XTR
BABY	1	2	n/a	S	As	C	Nc	V	Nv	M	Nm	n/a	C-l	C-h	2 signs	Easy: ASL,baby O, 5 C G; B, F	Medium IDYP3WV H	Hard: EMN 87XTR
WINDOW	1	2	n/a	S	As	C	Nc	V	Nv	M	Nm	n/a	C-l	C-h	2 signs	Easy: ASL,baby O,C G; B, F	Medium IDYP3WV H	Hard: EMN 87XTR
CUP	1	2	n/a	S	As	C	Nc	V	Nv	M	Nm	n/a	C-l	C-h	2 signs	Easy: ASL,baby O,C G; B, F	Medium IDYP3WV H	Hard: EMN 87XTR
PROBLEM	1	2	n/a	S	As	C	Nc	V	NV	M	Nm	n/a	C-l	C-	2 signs	Easy: ASL,baby O,C G; B, F	Medium IDYP3WV H	Hard: EMN 87XTR
STEAL	1	2	n/a	S	As	C	Nc	V	NV	M	Nm	n/a	C-l	C-h	2 signs	Easy: ASL,baby O,C G; B, F	Medium IDYP3WV H	Hard: EMN 87XTR

Appendix 13 Coding of composite list of signs

Key: PD = Performance difficulty score, G= Graphics score, in italics; colour coding: purple = *average scores 4.0-4.9*; blue = *difficult scores 3.0-3.9*, red = *difficult scores 1.0-2.9*

	Theme 1: Going out			Theme 2: Meal related			Theme 3: Behaviour related			Theme 4: Evening routine		
Coding	Sign	PD \bar{X}	G \bar{X}	Sign	PD \bar{X}	G \bar{X}	Sign	PD \bar{X}	G \bar{X}	Sign	PD \bar{X}	G \bar{X}
H-1-E (High translucency- 1 handed - easy)	COME	6.565	6.250	NO	6.652	5.500	LISTEN	6.130	6.444	SLEEP	6.826	6.888
	GO	6.434	5.400	EAT	6.695	6.470	GOOD	6.869	5.500	CLEVER	6.260	6.294
	WE	5.608	4.333	CALL	5.304	5.500	QUIET	6.391	6.444	UP	6.304	6.444
	I	6.869	6.625	GIVE	5.695	5.944	YOU	6.956	6.111			
	MY	6.695	6.555	LOOK	5.636	5.500	TIME	6.782	6.125			
	NOW	6.347	6.421	THIRSTY	6.089	5.944						
H-1-D (High translucency- 1 handed - Difficult				THROW	6.043	5.388	TV	5.521	3.142	WATCH	5.739	4.944
				SALT	5.869	4.777	NEXT	5.347	5.600	LIGHT	6.130	4.950
H-2-E (High translucency- 2 handed -easy)	DON'T	6.000	6.111	WASH	6.086	5.000	STAY	6.217	5.500	HUG	6.347	6.277
	COLD	6.000	5.333				KEEP	5.043	3.944			
	TODAY	6.347	6.176									
	CLOTHES	5.565	5.250									
H-2-D (High translucency- 2 handed- difficult	JACKET	5.636	5.333	COOK	6.043	4.333	STOP	5.826	5.055	KISS	5.391	5.555
				TEA	5.313	5.666	TOUCH	5.545	5.555	O/CLOCK	4.260	4.125
				MILK	5.565	5.000	INSIDE	5.434	6.111	hour	4.521	4.500
				OPEN	5.478	4.705	AFTER	5.304	3.666	IN	5.913	6.222
										BED-TIME	5.478	6.000
										WAKE-UP	5.727	5.350
										CLOSE	5.500	5.666
										AGAIN	5.043	4.333

	Theme 1: Going out			Theme 2: Meal related			Theme 3: Behaviour related			Theme 4: Evening routine		
Coding	Sign	PD \bar{X}	G \bar{X}	Sign	PD \bar{X}	G \bar{X}	Sign	PD \bar{X}	G \bar{X}	Sign	PD \bar{X}	G \bar{X}
L-1-E (Low Translucency-1 handed -easy)	WHO FATHER AUNT	5.954 5.782 5.086	5.277 6.000 5.500	WHAT BREAKFAST LUNCH WANT	6.136 5.391 5.043 4.227	6.000 4.250 4.722 3.600	WHY SORRY SWEET NAUGHTY	5.956 5.782 5.826 5.869	4.666 5.833 5.555 4.944	WHEN SUPPER	5.826 5.391	5.050 4.722
L-1-D (Low translucency, 1 handed , difficult)	OLD UNCLE SATURDAY WANT DIRTY WARM NEIGHBOUR NICE	5.521 5.217 5.190 4.227 4.826 4.391 4.652 4.869	5.500 5.388 4.944 3.600 4.277 3.722 3.722 4.055	WHICH SUGAR STOVE	5.652 4.590 3.913	5.350 4.388 2.700	BAD SISTER JEALOUS HAVE BEHAVE	5.173 5.695 4.869 5.869 3.652	3.666 5.500 5.111 4.411 4.352	EASY AFTERNOON	5.217 4.260	3.944 4.833
L-2-E (Low translucency, 2 handed , easy)	SUNDAY SHOPPING FRIEND	5.045 5.217 5.739	4.722 4.166 4.833							PLAY TIRED TOILET	5.217 5.391 5.521	4.833 4.900 5.700
L-2-D (Low translucency, 2 handed , difficult)	CLEAN LATE SLOW WEEK-END HOLIDAY MOVIES SHOES PARTY NEW TOWN VISIT	4.304 4.826 5.304 4.260 4.913 3.913 4.913 3.826 3.590 3.652 4.217	4.350 4.722 5.666 3.555 5.333 4.600 4.777 3.333 2.500 3.055 4.833	ENJOY CAKE BISCUITS CHICKEN CHAIR POTATOES RICE FRY GREEDY	6.304 5.521 5.391 4.347 5.043 4.608 5.217 4.608 4.739	4.222 5.222 5.555 4.227 5.000 2.764 4.300 3.555 4.722	HAPPEN SHARE BUY HOME GRAND-MOTHER CAN'T TRAFFIC	3.130 4.086 3.782 4.913 4.863 2.956 4.173	4.352 3.631 3.250 5.555 5.333 2.187 4.333	USE EARLY HOME-WORK READY DO TRY	4.782 3.909 4.347 3.782 4.608 3.869	3.000 4.055 5.529 3.684 4.588 4.611
Totals (122)	31			31			32			28		

Note: Chemically similar signs: THROW & LIGHT; LATE & SLOW, PARTY & NEW

Appendix 14

Development of interview schedules

Objectives	Procedures	Results	Recommendations
Pre-training questionnaire			
<p>1. To test the pre- test questionnaire for time taken for administration and method.</p> <p>2. To assess the content and organisation of the schedule</p>	<p>Presented face to face to the participant selected for the pilot study. An informal style was used to encourage the participant to relax (Alpiner & McCarthy, 2000).</p>	<p>The questionnaire took 25 minutes to administer. All questions were answered without hesitation.</p> <p>Two questions could be added to section B, as they appeared to be omissions. These related to information on mothers' level of communication and their sign learning experience.</p>	<p>The length of the schedule was acceptable, and an informal interview style would be adopted.</p> <p>Two questions be added to section B, with regard to mothers' communication generally with the child, and experiences thus far in learning to sign</p>
Post-training questionnaire			
<p>1. To assess the scope of the questions used to assess the sign learning experience</p>	<p>Two opportunities were used to assess these aspects – one during a pre-pilot study using two students then in the pilot study using a mother of a deaf child, described in Section 3.5.1.4. Issues raised in the pre- pilot were addressed prior to the pilot study.</p>	<p>Following the pre- pilot study, the questions needed to be rephrased in order to describe perceived signing ability.</p> <p>The actual comparison of the treatments needed to be worded more explicitly.</p>	<p>A third section prompting views on the comparison of treatments needed to be added.</p>
Debriefing interview			
<p>1. To address individual questions that arose prior to, and during the training specific to the signing programme and vocabulary covered in terms of earlier parent input.</p>	<p>This procedure was conducted both during the pre-pilot on the two students, and the pilot study participant. Issues raised in the pre- pilot</p>	<p>1. The pre-pilot participants had questions and comments pertaining to actual signs taught. The length of the interview was approximately 20 minutes.</p>	<p>The debriefing interview was a valuable aspect of the programme, and must be included. The researcher must be prepared to address issues with</p>

Objectives	Procedures	Results	Recommendations
<p>2. To address parents concerns following the training in terms of the way forward.</p> <p>3. To provide closing comments on the study</p>	<p>study were addressed prior to the pilot study.</p>	<p>2. The pilot study participant contributed valuable information with regard to the information content of the programme by raising pertinent issues in signing, e.g. nonverbal behaviour and facial expression. The style of the interview was acceptable and it flowed smoothly.</p>	<p>regard to sign language issues (e.g. the role of non-manual features) and resources on sign learning. The purpose and outcome of the study must be put in context i.e. research, with sensitivity to participants future signing needs.</p>

Appendix 15

Description of the interview schedules

Pre-training interview (Please refer to Appendix 16 for the schedule used)			
Structure (structured interview: open and close ended questions, rating scales)	Content	Reason for inclusion	Additional information
A. Biographical Information	<p>PARTICIPANT</p> <ul style="list-style-type: none"> - age - home language - educational level - status of hearing and vision <p>CHILD</p> <ul style="list-style-type: none"> - age of child - gender of child - number of years at school 	These are standard questions that facilitate an understanding of the context of the participants	
B. Diagnosis and Intervention Aspects	<p>1) Age at diagnosis , and description of hearing loss</p> <p>2) Description of intervention following diagnosis.</p> <p>3) Description of child's communication</p> <p>4)Description of parents communication with child</p>	<p>To gain an understanding around the issues of the late intervention.</p> <p>To obtain information about the process of intervention from the parent's perspective.</p> <p>To examine parent perceptions of the child's communication abilities.</p> <p>To allow parents to freely state their abilities such that questions following will allow them to more fully explore this.</p>	<p>Probes were used for questions 1 and 2 to more fully explore these open –ended questions</p> <p>Questions pertaining to acceptance of hearing loss and experiences in learning to sign were included as these were considered important to compliance with intervention</p>
C. Signing ability	Aspects of both skill level and knowledge of signing was probed. A 5 point Likert scale was used to	Parents needed to describe their signing skill as they perceived it at both receptive and expressive levels	This was used to assist with a descriptive measure for comparison post training.

	describe signing ability (Joseph, 1998). Scale: 1= no skills, 2= poor, 3=fair, 4= good, 5= excellent.		
D. Attitude towards signing	<p>Perceptions about sign language were probed in terms of a general feeling about it and perceptions with regard to learning.</p> <p>5 –point Likert scales were used. Learning difficulty rating scale: 1= very difficult, 2= a little difficult, 3= average, 4= easy, 5=very easy. Interest rating scale: 1= don’t really want to learn, 2= not interested, 3= doesn’t really matter, 4=a little interested, 5= very interested.</p>	Interest in learning to sign and the perceived difficulty of the task are considered contributing factors in sign learning (Loeding et al., 1990).	The scales used by Loeding et al. (1990) were used to assess this aspect.
E. Other	Additional information was requested	This was an opportunity for parents to contribute any aspect they felt was relevant	It was felt that allowing the parent to contribute would facilitate the process of participation in the programme
Post- training interview (Please refer to Appendix 17 for the schedule used)			
Structure (structured interview: open and close ended questions, rating scales)	Content	Reason for inclusion	Additional information
A. Attitude towards signing	Perceptions of the sign learning experience The rating scales used in the pre-training schedule were used.	To assess the participants perceptions about the learning of signs following the training	
B. Description of signing ability	Both open- ended and closed ended questions were used. The rating scale used in the pre-training schedule was used to assess signing ability.	To obtain the participants subjective impression of their signing skills following training.	
C. Evaluation of the training	Open ended questions were used to obtain comments on the methods	It was considered important to obtain the participants perceptions of the	

	used, as well as the vocabulary covered.	training to more fully understand the strategies used.	
Debriefing interview guide (Please refer to Appendix 18 for the schedule)			
Structure (semi – structured)	Content	Reason for inclusion	Additional information
A. Aspects relating to sign learning	A general guide was used	This was to ensure that issues that arose during the training – relating to information given, as well as the signs covered were dealt with in terms of researcher identified issues or parent questions.	
B. Specific comments relating to pre- training	This was very individualized – based on both the vocabulary selection phase and the pre-interview	It was considered important to address unique issues that become evident with regard to sign learning from the parent’s perspective prior to the training, e.g. specific vocabulary needs.	This addressed the issue of the lack of individualized vocabulary, usually covered in intervention, viz. supplementary vocabulary (Goossens’, 1995)
C. Closing comments	Researcher input was covered in terms of the scope and limits of study.	As this was a research study, not solely a training programme – it was felt that the context needed to be clarified again, with parents seeing the value of their contribution as well.	

Appendix 16

Pre-training interview schedule

Section A: Biographical information:

Mother:

Reference Number:

Age:

Highest educational level:

Home language:

Child:

Age:

Grade:

Gender:

Section B: Diagnosis and intervention aspects

- 1) When did you find out about (child's) hearing loss?
 - a. When did you notice the problem?
 - b. When and where was the hearing testing done?

- 2) What happened after you were told about the hearing loss?
 - a. What was done for you and the child by the doctors/ audiologist?
 - b. What were you told?
 - c. What has been done by the school?
 - d. Have you attended any programmes to help you communicate with (child)?
 - e. How do you feel about (child's) hearing loss?
 - f. How has it been to learn sign language so far? (barriers/ facilitators)

- 3) Describe (child's) communication.
 - a. Describe (child's) hearing ability.
 - b. Describe (child's) speech ability.
 - c. Describe (child's) signing ability.
 - d. Describe your communication with (child's name).

Section C: Signing skills

- 1) Describe your ability to sign :
 - a. Understanding signs: 1 = No skills, 2 = poor, 3 = fair, 4= good, 5= excellent
 - b. Producing signs: 1= No skills, 2= poor, 3= fair, 4= good, 5= excellent
 - c. How many words can you sign?
 - d. What words can you sign?
 - e. Can you sign phrases/ sentences?
 - f. Can you sign the alphabet?
- 2) How much do you know about sign language?
1=Nothing, 2= very little, 3= some things, 4= a lot, 5= most things

Section D: Attitude towards signing

- 1) How do you feel about sign language?
- 2) How do you feel about learning to sign?
 - a. Would it be easy/ difficult to learn to sign?
Rating scale: 1= very difficult, 2= a little difficult, 3= no problem, 4= easy, 5= very easy
 - b. How interested are you in learning to sign?
Rating Scale: 1 = don't really want to learn, 2= not interested 3= doesn't really matter, 4= a little interested, 5= very interested.

Section E

Is there anything else you would like to add?

END

Appendix 17
Post-training interview schedule

Reference Number: _____

SECTION A: Attitude towards sign learning

- 1) How would you describe your experience learning to sign?
- 2) On a scale of 1- 5, with 1 = very difficult, 2 = a little difficult, 3= no problem, 4= easy, and 5= very easy, how would you describe your sign learning?

SECTION B: Description of signing ability

- 1) Describe your ability to sign now.
- 2) How would you rate your signing ability now, on a scale from 1-5 with 1= no skills, 2= poor, 3= average, 4=good, 5= excellent?

SECTION C: Evaluation of the training programme

- 1) Was there a difference in learning between the two methods? Explain
2. How was it learning with:-
 - a) Word lists?
 - b) Sign pictures/graphics?
- 3) What do you think about:-
 - a) Information given?
 - b) Number of signs taught?
 - c) Kind of signs taught?

Appendix 18

Debriefing interview guide

Reference number: _____

Section A: Aspects relating to sign learning:

1. Non- manual features of signing (facial expression; signing intensity; speed of signing)
2. Dialect issues
3. Home – signs
4. Other

Section B: Specific comments relating to pre- training

1. Vocabulary requested
2. Other

Section C: Closing comments

1. Summary of purpose of study, current status, future access to findings
2. Parents :Way- forward – Plans for future
3. Presentation of available resources for learning South African Sign Language
4. Parent’s input: suggestions for teaching parents sign language
5. Other: “Is there anything you would like to add?”
6. Researcher’s expression of gratitude for participation in the study (letter)



Appendix 19
Theme sample scripts

Introduction	Theme1: Going Out	Theme 2: Meal Related	Theme 3: Behaviour related	Theme 4: Evening Routine
<p>The topic we are covering today is _____.</p> <p>These are some of the things one can say. We will learn signs relating to this theme today. (read script)</p>	<p>It's a holiday. Let's go somewhere. Where shall we go? Let's go visit someone. Let's go today /tomorrow. I want to visit daddy's /my family, your cousins, friends, neighbours, name of person, uncle, and aunt. Hug, kiss, call. Let's go to the movies, shopping, town, beach, the wedding. Get ready. I'm gonna change my clothes. Dress-up nice. Don't wear your old shoes. Where are your new shoes? Wear a clean jacket. It's dirty. Hurry. Do you have your jacket? It is cold, use warm clothes. Get ready.</p>	<p>Are you hungry / thirsty? What do you want? Like to eat? I'm cooking rice, lunch, supper, breakfast. I'm making sandwiches, cake, biscuits. I am frying meat, chicken, sausages, and eggs. Put some salt/sugar. Have milk, tea, coffee. Please help me. Bring the pot, bowl, plate. Put this in the oven, fridge, stove. Wash the dishes. That looks very nice. Did you enjoy the food?</p>	<p>You must stay at home. Stay inside at night. Don't go outside / road alone/ traffic. It is dangerous. Stay with your sister. Listen to grandma. Don't fight, be mean, naughty, rude, tease. Say sorry. Share your sweets. Can't have chips. Behave yourself. Be obedient. Be careful. I will buy that next time, on Saturday. Not now, later.</p>	<p>Its night. Put the light on. Stop playing. Do your homework. Let me help you. Let's read. Is it correct? Is it wrong /false? Try again. You are clever. Stop watching TV. Is the programme finished? Its time to sleep/ bedtime. Go to your room now. Tomorrow is school. You must wake-up early. Don't be late for school. You must rest. You are tired. Put on you pajamas. It's cold. Use a blanket. Put your clothes in the cupboard. Put the lights off. Come give me a hug. Give me a kiss. Goodnight.</p>

Appendix 20

Information on signing

Session 1: How are signs formed?

Signs are the words in sign language. Single signs are like the vocabulary of sign language.

All signs have four aspects that make up the sign. These four aspects are:

- 1) The shape of the hand/s, open or closed. E.g. V or A
- 2) The place on /near the body where the sign is formed, face, head, body or hands.
- 3) The movement of the hands, towards or away from the body, straight or curved movement, wriggly or alternating.
- 4) The orientation of the hand/ direction the hand is facing, towards or away from the body. Upwards or downwards.

Changes in any of these components can change the meaning of the sign.

Facial expression is also very important. It helps the person better understand what is signed.

Signs can be made with either one or two hands. With two – handed signs, the hands can both make the same shape and movement or the hands may perform different movements and have different shapes.

If you are right – handed, then one- handed signs should be made with the right hand. If the sign requires two hands, then the main movements should be made with the right hand.

The place where the sign is formed must be observed carefully, e.g., the right or left side of the face. The direction of the hand movement must also be made carefully – it can be towards the body or away from the body, or move from the right side to the left side of the face or body.

These aspects are important to note when learning to sign.

Session 2: What is sign language?

- Sign language is the language used by Deaf people to communicate. It was made up by deaf people, as spoken languages were made up by hearing people.
- Sign language uses the hands, head and body to form signs which are words or sentences, and is understood by watching the signing person. With spoken language words and sentences are formed by the mouth and understood by listening.
- There are many different sign languages in the world, just as there are many different spoken languages in the world. People from different countries cannot understand each others sign languages. In SA we mostly use SASL.
- The meaning of only some signs can be guessed by watching, most signs do not look like what they mean.
- Sign language grammar is complex. The order of signs is not the same as in speaking. It takes many years to learn this language, like it takes to learn any new language. One would need to associate with Deaf signing people to learn it well.
- Deaf people are happy when hearing people try to learn sign language. Hearing people generally use signs in spoken word order, and this is understood by Deaf people. As people learn sign language better, they sign more like Deaf people. Facial expression is very important to clarify what certain signs mean.
- Deaf children learn sign language easily as they use their eyes instead of their ears to learn language.
- Parents of deaf children often experience difficulty in learning to sign for many reasons, but they too can learn basic signs quickly.
- There is no sign for every spoken word. Some signs need many words to convey the meaning or many words can be replaced by one sign. This also happens when translating in spoken language as well.
- Signs can be arranged in the order of spoken words with only the main words signed – method also called Pidgin Sign Language. Many hearing people use this method; it is also called Signed English or Key Word Signing.

Session 3: Fingerspelling

Fingerspelling is the spelling of words using the manual alphabet. The manual alphabet refers to forming letters with the fingers. The number of letters in the alphabet depends on the language being used. In English there are 26 letters. English also has two types of manual alphabets – the one – handed alphabet (American - developed from Spanish) and the two – handed alphabet (British), e.g. the letter A can be formed with one hand or with two hands. Most schools in SA use the one handed alphabet.

Fingerspelling is a very old way of communicating and can be traced back to the 1600s and earlier. It was used by early traders and religious groups such as monks. It was developed by hearing people as a way of communicating. Deaf education adopted fingerspelling also, to teach Deaf people to read and write. Fingerspelling has become associated with sign language. It is not a sign language. Fingerspelling is used when a sign does not exist for a word in sign language (e.g. a place Victoria Falls) or someone’s name, e.g. Trevor Manual.

Fingerspelling is also used in communication between Deaf people and people who do not know sign or have limited signing. It is slower than sign language – and therefore only serves as a bridge to communication. It has also been used widely in some forms of signing, e.g. Signed English – where new signs are created by signing the initial letters of the word, e.g. “office” and “room”.

Initials are widely used among deaf people when developing name signs for people, e.g. for a person whose name is Bongi, the name sign created would contain the handshake for the letter B. In addition, some characteristic of the person would also be reflected. For example if the person has curly hair the B would be made moving down the head, or if the person has a scar on the cheek the B would be made at or near the cheek with the scar.

























All deaf children learning sign language learn the manual alphabet at school. It is only useful once a child starts reading and writing. The use of initials in signs however can be used as soon as the child starts signing, for example with names of people and for made up signs for things which have no known sign.

Session 4: Users of sign language

People who use natural sign language are usually born with a severe to profound hearing loss or may have developed a hearing loss very early in life and have learned to sign at school. Some deaf adults may learn sign language later in life, having gone to schools that used the oral method. The users of sign language generally belong to the Deaf community and see themselves as a minority group having their own language and culture, called Deaf Culture. They spell deaf with a capital “D”. They participate a lot in activities that involve other Deaf people, e.g. Deaf clubs, Deaf theatre. Deaf people see it as their human rights to be allowed to communicate in sign language. They also believe that deaf children should learn natural sign language as early as possible, at home and at school, as well as English or whatever language their parents speak. Natural sign language is best learned from a Deaf signing person. Interested people can find out more about the Deaf community by reading books and watching videos about the Deaf culture, by visiting the local Deaf club and visiting websites of the Deaf community, e.g. in South Africa, the Deaf Federation of South Africa (DEAFSA). This training course has not taught you natural sign language, but rather signs from South African Sign Language as a bridge to communicate using basic signs.

Appendix 21
Theme-based graphic displays

Theme 1: Going out

 WHO	 GO	 HAVE	 NOW	 FRIEND	 TOWN
	 CALL		 DUTY	 AUNT	 MOVIES
	 VISIT		 CLEAN	 NEIGHBOUR	 SHOPPING
	 USE		 READY	 SHOE	 WEDDING
	 HUB			 JACKET	 BEACH
	 HILL			 HOLIDAY	 TONGUE

Miscellaneous Verbs

Descriptors Nouns

Theme: Going out

Theme 2: Meal related

WHAT	WANT	ENJOY	THIRSTY	UNCLE	STOVE
	COME		HOT	BISCUIT	SALT
	WASH		NICE	TEA	RICE
	LOOK		GREEDY	CAKE	LUNCH
	FRY			POTATO	MEAT
	TOUCH			CHICKEN	SUGAR

Miscellaneous


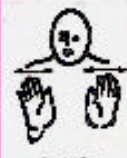






















Verbs

Descriptors

Nouns

Theme: Meal related

Theme 3: Behaviour related

 SORRY	 DON'T	 LISTEN	 BAD	 GRANDMOTHER	 PARTY
	 STOP		 AWAY	 SISTER	 INSIDE
	 BELIEVE		 LATE	 YOUR	 OUTSIDE
	 SHARE		 GOOD	 SWEET	 ROOM
	 BUY			 SATURDAY	 ROAD
	 GIVE			 NIGHT	 TRAFFIC

























Miscellaneous Verbs

Descriptors

Nouns

Theme: Behaviour related

Theme 4: Evening routine

 WHEN	 SLEEP	 QUIET	 TIRED	 SUPPER	 TV
	 WATCH		 WARM	 YOU	 PROGRAMME
	 DO		 CLEVER	 TIME	 AFTERNOON
	 TRY		 EARLY	 CLOTHES	 HOMEWORK
	 WAKE-UP			 BLANKET	 CHAIR
	 STAY			 CUPBOARD	 WEEK-END

Miscellaneous Verbs

Descriptors

Nouns

Theme: Evening routine



Appendix 22
Lists of colour coded sign glosses

Theme 1: Going out

Miscellaneous

WHO

Verbs

GO
CALL
VISIT
USE
HUG
KISS
HAVE

Descriptors

NOW
DIRTY
CLEAN
READY

Nouns

FRIEND
AUNTY
NEIGHBOUR
SHOES
JACKET
HOLIDAY
TOWN
MOVIES
SHOPPING
WEDDING
BEACH
TOMORROW



Theme 2: Meal related

Miscellaneous

WHAT

Verbs

**WANT
COME
WASH
LOOK
FRY
TOUCH
ENJOY**

Descriptors

**THIRSTY
HOT
NICE
GREEDY**

Nouns

**UNCLE
BISCUIT
TEA
CAKE
POTATO
CHICKEN
STOVE
SALT
RICE
LUNCH
MEAT
SUGAR**



Theme 3: Behaviour related

Miscellaneous

SORRY

Verbs

**DON'T
STOP
BEHAVE
SHARE
BUY
GIVE
LISTEN**

Descriptors

**BAD
AGAIN
LATE
GOOD**

Nouns

**GRANDMOTHER
SISTER
YOURSELF
SWEET
SATURDAY
NIGHT
PARTY
INSIDE
OUTSIDE
ROOM
ROAD
TRAFFIC**



Theme 4: Evening routine

Miscellaneous

WHEN

Verbs

**SLEEP
WATCH
DO
TRY
WAKE-UP
STAY
QUIET**

Descriptors

**TIRED
WARM
CLEVER
EARLY**

Nouns

**SUPPER
YOU
TIME
CLOTHES
BLANKET
CUPBOARD
TV
PROGRAMME
AFTERNOON
HOME-WORK
CHAIR
WEEK-END**



Appendix 23
Practice scripts

Theme 1: Going out

TOMORROW is a **HOLIDAY**
WHO to **VISIT**?

CALL AUNTY
HUG and **KISS** her

GO to **TOWN**
SHOPPING and **MOVIES**
HAVE a **FRIEND**

Get **READY NOW**
The **SHOES** are **DIRTY**
USE a **JACKET**

The **NEIGHBOUR'S WEDDING**
The **BEACH** is **CLEAN**

Theme 2: Meal Related

WHAT do you **WANT**?
COME get **CAKE**

UNCLE is **THIRSTY**
Put **SUGAR** in the **TEA**

Mustn't **TOUCH** the **BISCUITS**
LOOK that's **GREEDY**

WASH the **POTATOES**
I'll **FRY MEAT**
The **CHICKEN** is **NICE**
The **STOVE** is **HOT**
Put **SALT** in the **RICE**
Did you **ENJOY LUNCH**?



Theme 3: Behaviour Related

SHARE with **SISTER**
GIVE her **SWEETS**
We'll **BUY AGAIN**

Say **SORRY** to **GRANDMOTHER**
BEHAVE YOURSELF
STOP that's **BAD**
Be **GOOD** and **LISTEN**

TRAFFIC on the **ROAD**

LATE in the **NIGHT**
DON'T go **OUTSIDE**
INSIDE your **ROOM**
PARTY on **SATURDAY**

Theme 4: Evening Routine

It's **TIME** for **SUPPER**

WHEN is the **PROGRAMME?**
Be **QUIET** and **WATCH**
STAY in that **CHAIR**
TIRED in the **AFTERNOON**

DO your **HOMEWORK**
YOU are **CLEVER**
TV in the **WEEKEND**

The **BLANKET** is in the **CUPBOARD**
Get **WARM CLOTHES**
TRY to **SLEEP**
WAKE-UP EARLY



Appendix 24 Training instructions

Introduction to the programme

This research study involves looking at two methods to learning to sign – one uses sign pictures (graphics/sign illustrations) in a graphic display, and the other uses written words. Sign will be demonstrated for both methods. The aim is to test the two methods and to see how good they are in teaching signs to parents with children who are deaf. You will learn four sets of signs over the next four days, using the different methods.

You may be familiar with some of the signs. That is okay. You may also learn a different way of signing the word. These signs are used in the school as well. For the purposes of the study we request that you learn the signs in the programme for now.

Do you have any questions? If you have any questions as we go along- we will talk about them at the end of the session.

Condition A – Graphic display

Method :Present graphic display

Instructions: “We are going to learn this set of signs by using the graphic display”.

PHASE I : Learning individual signs

INSTRUCTIONS

“These are the signs that we will cover in this session. They are in grammatical categories. The sign from different categories can be combined to form phrases or short sentences. There are signs for question words, doing words - called verbs, describing words called adjectives and naming words- called nouns. First we will learn how to make individual signs. I will show you how these signs are made”.

Demonstration

“Watch me I will demonstrate the sign twice – once without voice and once with voice. Then you can do the same. We will go through all the signs in this way”.

Imitation

Participant imitates the sign twice. Correct sign formation if necessary. Feedback: “Okay”.....or “Do it like this”?

Practice

Use graphic display as reference.

Associate the sign with labelled sign illustration.

“Now point to the picture and then practice the sign:–first without saying the word (two times). Then sign and say the word (two times). Ask me for help if you need it”.

Each of the 24 signs are taught in this manner.

PHASE II: Sign combinations

Present the list of sign combinations.

Demonstration

“Watch me. I will sign two signs in a phrase or short sentence, signing only the words you have learned. I will read the phrases/sentences and then point to the sign illustrations before signing the words, once without voice and once with voice. Then you can try the same”.

Imitation

Participant imitates the sign combination. Correct sign production if necessary. Feedback: “Okay”.....or “Do it like this”.

Practice

1. “Now look at the phrases / sentences and then practice the signs, first without saying the words (two times). Then sign and say the words (two times). Ask me for help if you need it”.

2. “Then go through the list again, signing all phrases twice with voice”.



Condition B – Word lists

Method: Present written list of signs.

Instructions: “We are going to learn this list of signs”

PHASE I : Learning individual signs

INSTRUCTIONS

“These are the signs that we will cover in this session. They are in grammatical categories. The sign from different categories can be combined to form phrases or short sentences. There are signs for question words, doing words - called verbs, describing words called adjectives and naming words, called nouns. First we will learn how to make individual signs. I will show you how these signs are made”.

Demonstration

“Watch me I will demonstrate the sign twice, once without voice and once with voice. Then you can do the same. We will go through all the signs in this way”.

Imitation

Participant imitates the sign twice. Correct sign formation if necessary. Feedback: “Okay”.....or “Do it like this”.

Practice

Use word list as reference. Associate the sign with the written word.

“Now point to the word and then practice the sign, first without saying the word (two times). Then sign and saying the word (two times). Ask me for help if you need it”.

Each of the 24 signs are taught in this manner.

PHASE II: Sign combinations

Present the list of sign combinations.

Demonstration

“Watch me. I will sign two signs in a phrase or short sentence, signing only the words you have learned. I will read the phrases/sentences and then point to the signs, before signing the words, once without voice and once with voice. Then you can try the same”.

Imitation

Participant imitates sign combination. Correct sign production if necessary. Feedback: “Okay”.....or “Do it like this”.

Practice

1. “Now look at the phrases / sentences and then practice the signs, first without saying the words (two times). Then sign and say the words, two times. Ask me for help if you need it.
2. “Then go through the list again, signing all phrases, twice with voice”.

Appendix 25 Pilot studies

Aim	Procedure	Results	Recommendations
<p>Pilot study One</p> <p>To determine very broadly an adults response to learning to sign the manual alphabet, signs and the use of graphic representations of signs.</p>	<p>A novice adult signer, female, aged 40 years, who was familiar to the researcher was approached to participate.</p> <p>The aspects that were presented were:</p> <ol style="list-style-type: none"> 1. The one-handed manual alphabet 2. A set of 10 signs within context 3. A set of 5 sign illustrations unrelated to the signs in (2) above, <p>A video recording was made.</p>	<p>Pre-training, the participant showed a willingness to learn to sign. However, the procedure itself seemed daunting, as the participant struggled to get the orientation of the hands correct. The learning of the alphabet, and the difficulty in acquiring it within the session appeared stressful.</p> <p>2. The signs were imitated fairly easily – but the hand orientation was problematic, the participant turned her hand towards herself to monitor and match the production of the researcher.</p> <p>3. Sign illustrations: The participant was taught to associate the illustration with the sign, but seemed to link it rather to the demonstration than to “reading” the sign.</p> <p>The participant felt that that task was “hard”.</p> <p>Having the camera set up in close proximity resulted in the participant demonstrating a constant awareness of it.</p>	<ol style="list-style-type: none"> 1. The use of the video equipment needs to be more discreet. 2. The learning of the alphabet should not be considered in this introductory programme. This is also recommended in other instructional programmes (Fant, 1979) 3. Visual feedback may need to be considered, perhaps via a mirror. 4. The illustration would have to be associated with a demonstration of the sign, rather than a strategy to read the sign using text or an explanation of the sign formation. 5. A context for the sign learning, and its relevance had to be established.

Aim	Procedure	Results	Recommendations
Pilot study Two			
To assess the use of a graphic display in learning to sign	An undergraduate student-volunteer, took part in this procedure. The training took place in the video studio of the disciplines of Speech Language Pathology and Audiology clinic of the University of KwaZulu Natal (UKZN), Westville Campus - used specifically for student training. A set of 36 signs were presented to the student on a graphic display using signs arranged in word categories (miscellaneous, verbs, descriptors, and nouns). The display size was A4. The procedure involved producing the signs on imitation and then practicing the signs within a short phrase	The participant felt that a bigger display such as in an A3 format would be easier to follow. She felt that a demonstration by the researcher was easier to follow than the graphic symbols. She felt it was intimidating not knowing all the signs initially, and also felt that it was too many signs to learn. Pre- training scores were 2/ 36 i.e. 5% of signs were known. On immediate recall, 47% were acquired, 19% were approximations and 27% were incorrect.	<ol style="list-style-type: none"> 1. The board size should be A3. 2. Fewer signs should be taught in the session. 3. Not all signs on the display should be probed. 4. Attention should be given to the issue of practice of signing following acquisition through imitation.
Pilot study Three			
To practise and test both teaching strategies within the AATD for all four themes.	Two student volunteers, female, aged 19, participated in the pre-pilot study	Various aspects were specifically evaluated as enumerated in the table below	Recommendations on these aspects are presented below
1. To assess the environment with regard to the video recording	Participants were trained in the video studio at the UKZN clinic. Two cameras were used, one to focus on the participant and one on the trainer.	The set- up worked well. It did not appear to be intrusive. The split screen used in the analysis of the data will be useful to monitor both the participant and trainer performance.	The screen should be split in a 45: 55 ratio, as the right hand of the trainer was sometimes not captured with signs made away from the body. The table on which the graphics was placed needed to be lower, as it got on the way of some signs being produced.
2. To assess the use of visual feedback provided by a mirror	A large mirror (76 cm x 58 cm) was placed against a wall, 2 meters away and directly in front on the participant	The participants' attention had to be drawn to the mirror during the programme. They did not readily use it.	The mirror would introduce a new variable into the study and therefore should not be utilized.

Aim	Procedure	Results	Recommendations
3. To assess the format used in the session with regard to the flow of training components in terms of order	The order of the session included: introduction to the session; administering of theme probe sets, information on signing, teaching of the sign set (word level and phrase level) then administration of the post test probes.	The context did not seem very clear prior to the training despite the topic being given. The theme script was misplaced when it appeared later in the session. The introduction of information on signing should be presented before the teaching of the signs as it acknowledged the lack of skills and knowledge on signing – serving to perhaps help the participant relax. The participants appeared very interested in the topics and did not ask for any clarity or raise questions.	<ol style="list-style-type: none"> 1. The sample script should be read prior to the pre- test probe. 2. The information on signing should be given prior to the teaching of signs. 3. The order of the information topics be altered such that more information be given on sign formation, including hand dominance be included as participants needed to be reminded of this many times during the training. Order of topics should be: 1) sign formation, 2) description of sign language, 3) fingerspelling, 4) Users of sign language. Format: 1) reading of script, 2) pre-training probes, 3) Sign information, 4) imitation of sign, 5) practice of sign, 6) practice of sign combinations in Key Word Signing (KWS), 7) post training probe.
4. To assess instructions given	The instructions were read for both imitation and practice together.	This was confusing, and needed to be separated. Participants requested verbal feedback during the imitation task.	The instructions be shorter and be given separately for the imitation task and the practice task. Participants will also be given non- specific feedback during the training period.
5. To assess the practice of sign combinations	During both the teaching strategies, KWS was used with sign combinations.	The participants experienced difficulties with longer utterances.	Short phrases should be used when sign combinations were used for practice. There was difficulty signing and speaking longer utterances. The utterances had to be such that the amount of practice of all probes was constant.

Aim	Procedure	Results	Recommendations
6. To assess the theme-based graphic displays	The displays were referred to by pointing to sign illustrations when learning the individual signs and also when signing combinations.	The size of the pictures was considered acceptable, i.e. same as the original size in the book <i>Talking to the Deaf</i> (Neiderheitman, 1980). Some drawings were lighter than others. Locating the signs on the displays took time.	The final display should be darker when photocopied onto the A3 format. Colour coding should be used to highlight the semantic categories (Goossens', 1995)
7. To assess written material – cues to signing	Word lists and phrase/sentence lists were presented during the signing only condition.	The words were not easily distinguishable from each other	The word classes should be separated and written in larger font, and all signs should be in bold, and colour – coded for grammatical categories as the graphic displays -for ease of identification.
8. To assess analysis methods	The number of probes per session and within the ATD was assessed.	There were two sets of probes assessed within a session. This seemed acceptable to the participants. No signs were known on pre- training probes. All 64 signs were probed on the last session.	The data presentation method will need to also consider day seven when retention will be assessed.
9. To assess the design overall.	The design included time slots for the treatments to be adhered to.	This was not practical as participants had commitments that prevented them being seen as anticipated	Time slots in the design would have to be adjusted such that the order in which participants are seen rather than the actual time is considered in the alternation. Difference between strategies was not readily noticeable on scores. The prominent difference was evident in the participant request for assistance from the trainer when graphics were not available (e.g. 14 items had to be repeated by the trainer when only words were used). This aspect should perhaps

Aim	Procedure	Results	Recommendations
			be evaluated in terms of efficiency of the methods in terms of resources and self learning.
10. To assess time frames	Each aspect of the programme was timed.	Approximately 25 minutes was required to administer the programme.	Time frame was adequate for a half hour session.
11. To allow the trainer opportunity to practice the teaching strategies.	The researcher made notes during the training and observed the videos to critique performance.	Some signs were found to be inaccurate e.g. CLEAN – the movement was not repeated. The order of voice versus voiceless production was not consistent for the signs.	<ol style="list-style-type: none"> 1. The trainer must be vigilant with regard to production of all signs. 2. The instructions should be on hand and read out for each aspect of the training to maintain consistency. This should be confirmed by an independent rater.
12. Preliminary general comparison of strategies		<p>Graphics: Coped well, did not ask about arrows</p> <p><u>Comments from participant:</u> -good to do voiceless practice, it helped “think differently” and/focus when signing. -Number of signs was okay for the time allocated, i.e. 24.</p> <p>Signing only: Many errors with orientation, participants asked for assistance frequently.</p>	<p>Graphics:</p> <ol style="list-style-type: none"> 1. Two demonstrations need to be done consistently, participants were eager to imitate without careful observation. 2. No need to teach reading of arrows. Graphics triggered accurate recall. <p>Signing only:</p> <ol style="list-style-type: none"> 1. Imitated correctly after one demonstration, therefore need to be consistent 2. Phrases should be clearly typed, signs in bold. 3. The phrases and signs should be practiced twice: with voice, then without voice.



Appendix 26
Sample score sheet

Score Sheet Two

Participant Number: _____

Training strategy: _____

Probe number: P0/P1/ P2/P3

Expression	Response			
	Carrier phrase: “Sign _____”:	Correct sign	Approximation	Different sign - note
1. NICE				
2. BISCUIT				
3. COME				
4. UNCLE				
5. GREEDY				
6. FRY				
7. TOUCH				
8. ENJOY				
9. CHICKEN				
10. WHAT				
11. LOOK				
12. WASH				
13. WANT				
14. SUGAR				
15. RICE				
16. THIRSTY				

Reception	Response		
	Carrier phrase “What is this?”	Correct	Different sign- note
1. BISCUIT			
2. WHAT			
3. COME			
4. TOUCH			
5. GREEDY			
6. FRY			
7. THIRSTY			
8. RICE			
9. CHICKEN			
10. NICE			
11. SUGAR			
12. WASH			
13. WANT			
14. LOOK			
15. ENJOY			
16. UNCLE			

Appendix 27

Sample session format

Session Two

(So, how are you doing?)

1. Administer Probe (P2- Theme 1)
 - Expression
 - Reception
2. Presentation of Information on signing
 - What is sign language?
3. Introduce theme and read sample script
5. Probe (P0)
 - Expression
 - Reception
6. Sign teaching (Theme 2)

(So, how did you find that?)

7. Administer Probe (P1)
 - Expression
 - Reception

Appendix 28

Treatment integrity and inter-rater reliability measures

Aspect	Rater	Procedure	Justification
Treatment integrity of the teaching procedures			
1. Treatment integrity of the training sessions	An audiologist (Inter-rater 1) who had done a basic course in SASL 2 years prior as part of her undergraduate training was recruited.	Six of the sixteen video-recorded training sessions, 37.5% of the data was randomly selected by the inter-rater. In addition 50% of the post interviews and the debriefing sessions were observed. This resulted in 10 of a possible 24 sessions (42%) of the programme overall being observed for treatment integrity. Refer to Appendix AD for the schedule of sessions randomly selected by the inter-rater. The observer was guided by a schedule containing the aspects to be covered. Refer to Appendix AE for the schedule used.	Schlosser (2003) suggests a range of 20 to 40% be used as a guide when selecting data for the purpose of treatment integrity and inter-observer reliability. In addition, it was ensured that each set and participant was represented and that there were equal numbers of the two training conditions as recommended in the literature (Schlosser, 2003).
2. Treatment integrity of the training procedure	Inter-rater One	Video-recordings of the six treatment sessions (37.5% of the data) described earlier and referred to in Appendix AD were observed. Refer to Appendix AF for a sample of the recording form used by the inter-rater.	To determine if the training itself was conducted as specified in terms of the teaching (instructions, demonstrations, imitation and practice.
Inter-rater reliability for sign acquisition and assistance scores			
1. Inter-rating of individual probe signs measured by pre-training and post-training probes in the expressive and receptive modes.	A SASL signer (Inter-rater 2), who had completed a level three SASL course through the KZN Sign Language Academy was recruited.	On completion of the training programme, the researcher viewed all the signs measured on probes P0 to P3 captured on video-recordings. Signs were evaluated in terms of being either correct or incorrect on the specified criteria. A brief training period and discussion of the task occurred prior to the inter-rating. A video recording was made available to the inter-rater specifying the sign dialect that was used in the study. Discussion occurred around the factors that would be considered in terms of the scoring, viz. the parameters of handshape, location, movement and orientation. In addition the inter-rater felt that signs that could be	100% of the data was inter-rated. Thus 960 signs (60 signs X 4 sets X 4) for expression and reception respectively were inter-rated. This was considered critical as the scores would be the primary data to differentiate the two conditions being evaluated. This is above the criteria recommended by authors (Schlosser et al., 2001, Richards et al., 1996). Video-recordings were used as this was a more feasible method

Aspect	Rater	Procedure	Justification
		<p>confused with other signs on the basis of the changes in sign parameters was critical, and considered sign location to be critical in terms of contributing to the accuracy of the signs.</p> <p>Once the inter-rater completed the scoring by observing all videos, the researcher captured the data and compared the scoring, looking at discrepancies. Inappropriate sign dialect that was accepted by the Inter-rater was rejected; however, the inter-rater's judgment for the parameter of movement was favoured where the researcher had noted a score to be "uncertain" due to this parameter.</p>	<p>because of the time demands of live inter-rating within the AATD in terms of the availability of personnel to suit the schedule. In addition, the video also allowed for verification in the case of uncertainty of the scorers due to the transient nature of the signs.</p>
<p>2. Inter-rating of scores for trainer assistance during training.</p>	<p>Inter-rater 1</p>	<p>Six of the 16 training sessions, i.e. 37.5% of the data, were randomly selected for inter-rating as described above and presented in Appendix AD. All signs covered in the theme set (24) were inter-rated because of the difficulty of separating them. However, only the results for probes (15) are given in the results. These signs were inter-rated during three phases of sign practice, viz. word level, and two sessions at phrase level. This resulted in 15 x 3 (45) opportunities for probe signs within a set. Signs were rated in terms of three categories: a) assistance not required; b) correction for a sign approximation, and c) demonstration for a non response or incorrect sign.</p>	<p>The decision to reflect only the probe signs in the inter-rating was influenced by the comparisons of the training strategies which will be more meaningful if ratings did not include signs not balanced for the purpose of the AATD.</p>

Appendix 29
Random selection of material for inter-rater reliability

Material selected randomly (by Inter-rater 1) for inter-rater agreement of assistance received during training and for calculation of treatment integrity - denoted by X.
(S= Signing-only strategy, G=Graphics strategy)

	Day 1 (training)	Day 2 (training)	Day 3 (training)	Day 4 (training)	Day 5 (P2 and post- training interview)	Day 12 (P3 and debriefing interview)
Participant SG	SET 1 - G	X <i>SET 2 - S</i>	X <i>SET 3- G</i>	SET 4 - S		
Participant D	SET 2 -S	SET 1 -G	X <i>SET 4 – S</i>	X <i>SET 3 –G</i>		X
Participant R	X <i>SET 1-S</i>	SET2-G	SET 3 -S	SET4-G	X	X
Participant SA	X <i>SET -2 G</i>	SET 1- S	SET 4-G	SET 3-S	X	

Appendix 30
Treatment integrity- session format

Treatment integrity: session format form

Participant:

Teaching strategy:

Theme number:

Please indicate if the trainer conducted the following:

	Yes	No
1. Asked the participant how she was doing.		
2. Probed signs learned from previous session (except on day one).		
3. Presented information on an aspect of Sign Language/		
4. Provided instructions on the teaching strategy.		
5. Introduced the theme, with a sample script.		
6. Probed signs related to the theme.		
7. Conducted the training.		
8. Asked the participant how they felt about the completed task.		
9. Probed the signs learned in the session.		
10. Conducted a post interview, raised issues for discussion in debriefing session.		
11. Conducted a debriefing session.		

Appendix 31 Treatment integrity form: training criteria (sample)

Instructions: Please note whether the following aspects were covered in the training session.

((V= with voice, VL = without voice, C = Correction, D = Demonstration, - = No assistance provided)

Participant number: _____

Teaching strategy: _____

Theme 1: Going Out (Individual signs)

	Word Demonstration			Word imitation		Word practice			Assistance C/D/-
	Instruct ions	VLx1	V1x1	VL x1	VLx1	Instructions	VLx2	Vx2	
1. WHO									
2. GO									
3. CALL									
4. VISIT									
5. USE									
6. HUG									
7. KISS									
8. HAVE									
9. NOW									
10. DIRTY									
11. CLEAN									
12. READY									
13. FRIEND									
14. AUNTY									
15. NEIGHBOUR									
16. SHOES									
17. JACKET									
18. HOLIDAY									
19. TOWN									
20. MOVIES									
21. SHOPPING									
22. WEDDING									
23. BEACH									
24. TOMORROW									

Theme 1: Going out (sign combinations)

Signs	Phrase Demonstration			Phrase imitation		Phrase practice 1				Phrase practice 2		
	Instructions	VL x1	V x1	VL x1	V x1	Instructions	VLx2	Vx2	Assistance C/D/-	Instructions	Vx2	Assistance C/D/-
1. TOMORROW												
2. HOLIDAY												
3. WHO												
4. VISIT												
5. CALL												
6. AUNTY												
7. HUG												
8. KISS												
9. GO												
10. TOWN												
11. SHOPPING												
12. MOVIES												
13. HAVE												
14. FRIEND												
15. READY												
16. NOW												
17. SHOES												
18. DIRTY												
19. USE												
20. JACKET												
21. NEIGH- BOUR												
22. WEDDING												
23. BEACH												
24. CLEAN												

Appendix 32
Treatment integrity of programme: results

Note: Inter-rater agreement for treatment integrity of the training sessions was conducted by Inter-rater 1. Six sessions, 37.5% of the sessions, were observed to determine whether all components in a session were conducted.

	Yes	No
1. Asked the participant about how she was doing	5/6	1/6
2. Probed signs learned from previous session	5/5	
3. Presented information on an aspect of sign language/signing.	6/6	
4. Introduced the training programme, with instructions (Day one only).	2/1	
5. Introduced the theme, with a sample script.	6/6	
6. Probed signs related to the theme.	6/6	
7. Conducted the training	6/6	
8. Asked the participant how they felt about the completed task.	6/6	
9. Probed the signs learned in the session.	6/6	
10. Conducted a post-training interview.	2/2	
11. Conducted a debriefing session.	2/2	
Inter-rater agreement	50/52 = 96%	

Appendix 33 Treatment integrity of teaching criteria: results

Inter-rater agreement for treatment integrity of training sessions observed by Inter-rater 1 (37.5% of randomly selected sessions: 6 of 16 sessions). In each of the themes, the 15 probe signs were observed for adherence to the teaching criteria, and instructions given.

(Key: Observations relate to participants: SG, D, SA, R, and Themes: 1-4
VL= voiceless signing, and V= voicing during signing)

a) Individual signs

Observations (Participant – theme)	Demonstration			Imitation		Practice		
	Instructions	VLx1	Vx1	VL x1	Vx1	Instructions	VLx2	Vx2
1. (SG-2)	1	15	15	15	15	1	30	30
2. (SG-3)	1	15	15	15	15	1	30	30
3. (D-3)	1	15	15	15	15	1	30	30
4. (D- 4)	1	15	15	15	15	1	30	30
5. (SA-2)	1	14	14	14	14	1	30	30
6. (R-1)	1	15	15	14	15	1	30	20
Inter-rater Agreement	6/6 (100%)	89/90 (99%)	89/90 (99%)	88/90 (98%)	89/90 (99%)	6/6 (100%)	180/180 (100%)	180/180 (100%)

b) Sign combinations

Observations	Phrase Demonstration			Phrase imitation		Phrase practice 1			Phrase practice 2	
	Instructi ons	VLX1	VX1	VLX1	VX1	Instructi ons	VLx2	VX2	Instructi ons	Vx2
1 (SG-2)	1	15	15	15	15	1	29	30	1	30
2 (SG-3)	1	15	15	15	15	1	30	30	1	30
3 (D-3)	1	15	15	15	15	1	30	30	1	30
4 (D-4)	1	15	15	15	15	1	30	30	1	30
5 (SA-2)	1	15	15	14	15	1	30	30	1	30
6 (R-1)	1	15	15	14	15	1	30	30	1	30
Inter-rater agreement	6/6 (100%)	90/90 (100%)	90/90 (100%)	88/90 (98%)	90/90 (100%)	6/6 (100%)	179/180 (99%)	180/180 (100%)	6/6 (100%)	180/180 (100%)

Summary (Inter-rater agreement) :

Total instructions = 30/30 = 100%
 Total demonstrations = 359/360 = 99%
 Total imitations = 355/360 = 98%
 Total practice = 939/900 = 99%

Appendix 34
Inter-rater agreement scores for probe signs

(Note: 4 x 15 probes per set, PO-P3, were considered, 100% of the data)

	Theme 1	Theme 2	Theme 3	Theme 4	Total	Percentage
Participant SG						
Expression	59/60	53/60	59/60	56/60	227/240	95%
Reception	58/60	59/60	59/60	59/60	235/240	98%
Participant D						
Expression	57/60	56/60	57/60	56/60	226/240	94%
Reception	59/60	59/60	59/60	59/60	236/240	98%
Participant SA						
Expression	59/60	56/40	57/60	56/60	228/240	95%
Reception	59/60	57/60	58/60	60/60	234/240	98
Participant R						
Expression	56/60	60/60	59/60	59/60	234/240	98
Reception	59/60	60/60	58/60	60/60	237/240	99%
SUMMARY						
Inter-rater agreement	Expression				915/960	95%
	Reception				942/960	98%



Appendix 35
Inter-rater agreement for assistance scores

(Note: Six sessions, 37.5% of the sessions, were observed during 3 practice phases. There were 15 probes signs in each phase.

Strategy		Signing-only	Graphics	Graphics	Signing-only	Graphics	Signing-only
Theme (Participant)		2 (SG)	3(SG)	3 (D)	4 (D)	2 (SA)	1 (R)
Practice level	Practice 1	13/15	11/15	13/15	14/15	14/15	11/15
	Practice 2	12/15	12/15	12/15	14/15	15/15	14/15
	Practice 3	13/15	15/15	15/15	13/15	15/15	11/15
Total scores		38/45	39/45	40/45	41/45	44/45	36/45
Inter-rater agreement		238/270 = 88%					

Appendix 36

Summary of participant perspectives on sign teaching

Note: A summary of the main findings is given here. The details from the pre- and post training interviews are presented in Appendix 37 and Appendix 38.

A. Signing ability and views on learning to sign

It must be noted that participants were recruited on the basis of a lack of signing ability and a motivation to learn to sign. Participants had responded in accordance with having a sign vocabulary of less than 15 signs. With regard to pre-training signing ability, participants unanimously described their signing as inadequate with descriptions such as “*pathetic*”, “*very bad*” and “*basic*”. Post-training all participants felt their signing had “*definitely*” improved. Refer to Appendix 37 for details on participant perceptions of skills pre- and post-training.

B. Interest in sign learning

All participants appeared highly motivated to sign prior to the training. This was not unexpected, given their voluntary participation. Post-training they were still very motivated to improve their signing skills, expressing a desire to continue with lessons. Comments included regret at not having learned to sign earlier, as well as viewing sign language from a broader linguistic perspective with wider application to the hearing population. This perhaps reflects a change in their own view of themselves as signing hearing individuals. This can therefore be seen as a positive step in intervention, as it may have implications for transformational learning (Broder- Johnson (2001). This is of particular importance given that pre-training participants perceived that the training would be “*a little difficult*”, and post training, did not generally view it as “*easy*”. Appendix 37 presents detailed information on the level of interest in sign learning pre- and post training.

C. General aspects

Participants’ feedback from the post training interviews provided the data by which the responses to the training were noted, and is available in Appendix 38. It became evident from participant responses that the training in general, including both strategies, was viewed positively by all participants. The vocabulary, in terms of size and scope were seen as highly appropriate with immediate practical application. Comments included “*It is something I would use on a daily basis with R*”; “*All these words are important- These are the words you use everyday*”. Participants also appeared to retain and apply the general information on signing provided during the training, described in Section 3.5.1.3 and noted in Appendix 38. Examples included “*I remember you saying sign in a box, in a particular area- I wasn’t aware of it*” and “*Things I didn’t know- there are different signs and facial expression*”.

D. Training strategies

All participants commented on the benefit of the graphics. Refer to Appendix 38. Three participants actually felt it was more useful than the word lists. The following comments were made by the participants - R: “*The pictures were more helpful- show you the sign*”; SG: “*From where I started, I needed illustrations- show me how to grasp it. I am not really that good at knowing how the sign is positioned as such*”; D: “*Only words, was a little hard*”; R: “*Seeing the pictures helped me a lot. Because even if don’t know anything about sign language by seeing the picture- gives you an idea about how to go about it... I found it a very big help looking at the pictures*”. One participant, SA, stated that she relied on the signing

that accompanied the graphics, only “*peeking*” at the sign illustrations. This could mean that the graphics did assist with recall, but the sign demonstrations were relied on.

Participant S was also the only one who commented on the bimodal method (signing with and without voice), and felt it to be beneficial: “*It helped especially when you made us repeat it twice. Saying it twice for ourselves, twice silent and twice with words actually drums it into our heads*”. Word lists accompanying the signing-only condition were seen as beneficial as well, as commented on by R who stated they did add to the signing demonstration, which could also refer to the structuring of the learning task to keep the targets in mind: “*It was good. It was different from if someone just signs to you. Here you are also seeing the word*”.

In summary, the training was viewed by the participants as beneficial as they considered their signing to have improved to some extent. Further, they felt that the use of the communication displays facilitated their learning of the signs, with three participants clearly stating that it was more beneficial than the signing only condition.

Appendix 37 Participants' perceptions of signing

1) Participant perception of signing ability

Aspect	Participants							
	SG		D		SA		R	
	Pre-training	Post-Training	Pre-training	Post-training	Pre-training	Post-training	Pre-training	Post-training
1. Description of signing ability	<i>Pathetic. My sign language sucks. I need to learn sign language.</i>	<i>I don't think I am good in any way. I've got a lot to learn. From what I learned it's actually okay... definitely improved. I am confident to a certain extent.</i>	<i>Not very good. Basic, am learning</i>	<i>I'm able to sign a lot better than I used to. I had very little knowledge of it. I think I will be able to sign better now.</i>	<i>Very bad</i>	<i>Much better. Definitely improved. Because I knew about 5 or 6. Now a lot. Now I can make a sentence. Talk to M now- "Do your homework".</i>	<i>Know basics. Half the time I am lost. I need to learn. I think we should learn proper signs.</i>	<i>Definitely improved... definitely improved. I know now I can communicate better, been a big help for me. I actually can put sentences together and stuff like that. Something I didn't know before. It even helps me when she does home-work.</i>
2. Self rating of signing ability	2- poor	3-fair	2-poor	3- fair <i>I am a little more confident now.</i>	2- poor	3- fair <i>I only know key words. Can't say good, because I don't know everything.</i>	2-poor	4- good. <i>I'll say from poor, now to good. I'll give myself good" (laughed)</i>

2) Participant perception of the sign learning experience

Aspect	Participants							
	SG		D		SA		R	
	Pre training	Post – training	Pre-training	Post –training	Pre-training	Post – training	Pre-training	Post - training
1. Description of sign learning experience.	<i>If I had put effort would have learned. Have been putting it off. Very oral, because daughter didn't need it.</i>	<i>Look I don't think I have been utterly good at it, but I have picked up. But relatively I have made a difference. You described Pidgin – I have made attempts to learn signs and use it. When I am by myself during the day, I practice. Look it's really been good.</i>	<i>Haven't had lessons</i>	<i>For one I benefited quite a lot. I learned many signs. It was interesting.</i>	<i>Haven't learned more since being to parent guidance class, and observing.</i>	<i>It was actually a good experience. It wasn't that difficult as I thought it would be.</i>	<i>A little difficult. I don't spend time because of working nights. Need time – I have no time</i>	<i>Um! Fascinating. What can I say? So many signs. Never thought like the words I learned so far- are everyday words. – have signs for them, Enlightening. Because good to know sign language. Not only because have a child who signs – just to communicate</i>
2. Attitude towards sign learning 2.1 Feelings about sign language	<i>Now I am older, would really, really like to do it. Such a good language to learn.</i>		<i>Is a very interesting language to learn.</i>		<i>Haven't really thought about it. I don't have a problem with it. It's good.</i>		<i>Interesting, a good thing to know</i>	

Aspect	Participants							
	SG		D		SA		R	
	Pre training	Post – training	Pre-training	Post –training	Pre-training	Post – training	Pre-training	Post - training
2.2 Interest in sign learning 2.21. Description of interest in sign learning 2.2.2 Rating scale of interest level (5-point)	<i>It's becoming an issue at school for me to learn and help R. Therefore, I have been so eager to come and learn.</i>	<i>Oh I am very very pleased. Doing this is a complete turning point for me now. Why didn't I do it many years back? But my approach was different I wanted R to be oral, but he's not like T(his sister)as such. I wish I could continue. Find somewhere I can go on the weekends and become fully fledged.</i>	<i>Love to learn</i>	<i>I enjoyed it for one. Two it was very very beneficial to me. I hope I will now be able to learn more signs. There was a little of confusion before – unable to communicate. Now from what little I learned- I can communicate.</i>	<i>I would love to sign, would be excellent. Can communicate more. Can understand him better. My family can learn.</i>	<i>I would like to go and learn it on my own. Maybe I can end up teaching.</i>	<i>Very eager</i>	<i>It is interesting and I will like to learn more, definitely. I think everyone should learn, whether they have a deaf child or whatever. Maybe helps you in other countries- people will pick up – not only if you have a child I want to go find out about classes for the entire family, because will be useful throughout our life. E should be given a fair chance to communicate freely with us and everyone else.</i>
3. Perceived sign learning difficulty	<i>2- a little difficult</i>	<i>3 – no problem</i>	<i>2- a little difficult</i>	<i>2- was a little difficult</i>	<i>3- no problem</i>	<i>4- easy</i>	<i>2- a little difficult</i>	<i>3 – no problem..</i>

Appendix 38

Participant perception of sign teaching strategies

Aspect	Participants			
	SG	D	SA	R
1. Perception of the different teaching strategies.	<i>Good way to learn... see the words and use the illustrations. From where I started, I needed illustrations. Show me how to grasp it. I am not really that good at knowing how that sign is positioned as such. Looking at the illustration showed me what I should be doing.</i>	<i>It was a very good method. It simplified from my point of view.</i>	<i>I think it was good. It helped especially when you made us repeat it twice. Saying it twice for ourselves twice silent and twice with words actually drums it into our heads.</i>	<i>The pictures were more helpful. Show you the sign. The word also, because if put words and pictures together, actually know what you are doing.</i>
2. Comments on specific aspects of the training: 2.1 word lists 2.2 graphics 2.3 sign information 2.4 sign selection (number of signs/ kind of signs)	<p>Word lists: <i>Okay because you were also aiding me. Would have been difficult.</i></p> <p>Graphics: <i>For a beginner like me, was excellent looking at the illustration. But even then you needed to guide me.</i></p> <p>Sign Information: <i>I remember you saying sign in a "box, in a</i></p>	<p>Word lists: <i>Only words, was a little hard.</i></p> <p>Graphics: <i>The pictures were there, were able to see it...was better. You can look at picture and....(gestured).</i></p> <p>Sign Information: <i>I did benefit. Things I didn't know there are different</i></p>	<p>Word lists: <i>The word lists was very helpful because I really don't look at the pictures.</i></p> <p>Graphics: <i>The pictures as well helped, because mostly you showed us. The pictures don't actually show you. You showing helped a lot. Easier. The pictures also helped. If you peek at it quickly, you remember how the sign goes. It was very good.</i></p> <p>Sign Information: <i>When you told me about the monks, used it many years ago, I was</i></p>	<p>Word lists: <i>It was good. It was different from if someone just signs to you. Here you are also seeing the word.</i></p> <p>Graphics: <i>Seeing the pictures helped me a lot. Because even if don't know anything about SL, by seeing the picture, gives you as idea about how to go about it. I found it a very big help looking at the pictures.</i></p> <p>Sign Information: <i>It was good. Maybe some people don't know about DEAFSA,</i></p>

Aspect	Participants			
	SG	D	SA	R
	<p><i>particular area- I wasn't aware of it.</i></p> <p>Sign selection <u>No of signs:</u> <i>For now I would say it was adequate. Off- hand I don't remember everything. If more, would have been worse.</i></p> <p><u>Kind of signs:</u> <i>Familiar and useful. It is something I would use on a daily basis with R. Common things, use everyday with a hearing impaired child.</i></p>	<p><i>signs and facial expression. I was not aware of it.</i></p> <p>Sign selection <u>No of signs:</u> <i>Was okay, - manageable.</i></p> <p><u>Kind of signs:</u> <i>I have benefited. I did not know them. I am pleased to learn them.</i></p>	<p><i>learning a little bit of history. Helped to understand about Deaf society.</i></p> <p>Sign selection <u>No of signs:</u> <i>You told me how many words we had to learn- something like 80- 90 or something. To me I thought "wow" but it didn't prove to be that hard at the end of the day. It was a good thing.</i></p> <p><u>Kind of signs:</u> <i>All these words are important- These are the words you use everyday.</i></p>	<p><i>and about ASL- Different forms of sign language. Names- associate something about person- made me understand when E talks about friends at school- uses characteristics, also family – uncle with silver car. Good way for child to remember people - it helps.</i></p> <p>Sign selection <u>No of signs:</u> <i>Number of signs, were okay. In fact, I am very happy that I did this. Because it made me learn a lot of signs, I won't know.</i></p> <p><u>Kind of signs:</u> <i>lot of signs one used often at home. . but you don't know how to sign it. Because of this programme, I have learned a lot of things. It will be easier for me to communicate with E. Most of the signs we learned are common words- words we always use. It's a good feeling because you learned something to use.</i></p>



Appendix 39
Individual signing scores: sign production

Note: Scores were obtained for four participants (SG, D, SA and R), across four probes (P0-P3), and four themes (1-4).

SG

Teaching strategy (theme)	Probe			
	P0	P1	P2	P3
Graphics (1)	2	9	9	6
Graphic (3)	1	8	7	6
Graphics Total	3	17	16	12
Signing-only(2)	2	10	11	8
Signing-only (4)	2	10	7	6
Signing-only Total	4	20	18	14

D

	P0	P1	P2	P3
Graphics (1)	1	12	11	8
Graphics (3)	0	12	13	7
Graphics Total	1	24	24	15
Signing-only (2)	2	11	9	8
Signing-only (4)	1	9	10	6
Signing-only Total	3	20	19	14

SA

	P0	P1	P2	P3
Graphics (2)	4	14	12	10
Graphics (4)	2	13	11	12
Graphics Total	5	27	23	22
Signing-only (1)	4	15	13	9
Signing-only (3)	4	13	13	11
Signing-only Total	8	28	26	20

R

	P0	P1	P2	P3
Graphics (2)	3	14	14	10
Graphics (4)	1	13	12	12
Graphics Total	4	27	26	22
Signing-only (1)	1	13	14	10
Signing-only (3)	2	14	13	9
Signing-only Total	3	27	27	19

Appendix 40

Individual signing scores: sign understanding

Note: Scores were obtained for four participants (SG, D, SA and R), across four probes (P0-P3), and four themes (1-4).

SG

Teaching strategy (Theme)	P0	P1	P2	P3
Graphics (1)	4	12	11	9
Graphics (3)	5	10	11	9
Graphics Total	9	22	22	18
Signing-only (2)	5	12	13	14
Signing-only (4)	3	11	9	8
Signing-only Total	8	23	22	22

D

	P0	P1	P2	P3
Graphics (1)	2	14	13	9
Graphics (3)	0	13	11	10
Graphics Total	2	27	24	19
Signing-only (2)	4	11	11	8
Signing-only (4)	2	12	12	9
Signing-only Total	6	23	23	17

SA

	P0	P1	P2	P3
Graphics (2)	4	15	15	14
Graphics (4)	3	13	14	13
Graphics Total	7	28	29	27
Signing-only (1)	3	15	15	11
Signing-only (3)	2	15	14	14
Signing-only Total	5	30	29	25

R

	P0	P1	P2	P3
Graphics (2)	4	15	14	14
Graphics (4)	1	12	13	13
Graphics Total	5	27	27	27
Signing-only (1)	0	14	15	14
Signing-only (3)	5	15	15	14
Signing-only Total	5	29	30	28

Appendix 41
Assistance required during training

Participant	Strategy					
	Graphics			Signing-only		
	Theme- Day	N=15	Percentage	Theme- Day	N=15	Percentage
SG	1-1	10	67	2-2	12	80
	3-2	8	53	4-4	13	87
D	1-2	9	60	2-1	11	73
	3-4	10	67	4-3	8	53
SA	2-1	10	67	1-2	12	80
	4-3	10	67	4-3	12	80
R	2-2	12	80	1-1	11	73
	4-4	9	60	3-3	9	60

Appendix 42
Nature of assistance

Participant	Type of assistance	Strategy											
		Graphics						Signing-only					
		Day-set	Practice 1 (n=15)	Practice 2 (n=15)	Practice 3 (n=15)	Total N=45		Set-Day	Practice 1 (n=15)	Practice 2 (n=15)	Practice 3 (n=15)	Total N=45	
						No	%					No	%
SG	Demonstration	1-1	0	0	0	0	0	2-2	10	2	0	12	27
	Correction		8	6	5	19	42		1	5	7	13	29
	Demonstration	3-2	0	0	0	0	0	4-4	9	3	3	15	33
	Correction		7	5	1	13	29		4	4	5	13	29
D	Demonstration	1-2	4	1	0	5	11	2-1	6	2	1	9	20
	Correction		3	3	1	7	16		6	4	0	10	22
	Demonstration	3-4	2	1	0	3	7	4-3	8	6	4	18	40
	Correction		8	3	3	14	31		1	1	2	4	9
SA	Demonstration	2-1	0	0	0	0	0	1-2	6	2	2	10	22
	Correction		10	0	1	11	24		4	2	2	8	18
	Demonstration	4-3	3	0	0	3	7	4-3	7	3	2	12	27
	Correction		5	6	2	13	29		3	1	1	5	11
R	Demonstration	2-2	4	1	0	5	11	1-1	7	2	2	11	24
	Correction		7	5	2	14	31		2	2	3	7	16
	Demonstration	4-4	0	1	0	1	2	3-3	5	1	2	8	18
	Correction		8	2	1	11	24		3	3	2	8	18