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Table1 Participant details

ID	Age	Sex	Report of damage localisation	Time post onset (months)	Education (years)	HADs Anxiety	HADs Depression
C1	39;05	F	Left middle and anterior cerebral artery infarct	66	21.5	6	4
P3	64;04	M	Left fronto-parietal infarct	7	20	1	1
C2	33;11	M	Left middle cerebral artery infarct	39	17	4	4
C3	54;03	F	Left parietal extension	96	13	10	1
C4	42;11	M	Left intra-cerebral bleed and lateral ventricle rupture	13	14	1	1
C5	56;03	M	Multiple left hemispheric infarcts	20	30	6	10
C6	56;10	M	Left parietal-occipital and frontal lobe	13	13	16	10
C7	51;03	F	Left hemisphere infarct	29	12	5	4

C8	55;08	M	Left fronto-parietal and lateral ventricle infarcts	5	11	5	3
C9	57;07	F	Left fronto-parietal and right internal capsule infarcts	114	11	14	10
C10	60;02	F	Left intra-cerebral haemorrhage	146	9	16	16
C11	45;03	F	Left middle cerebral artery aneurysm (multiple)	23	15	12	5

HADs = Hospital Anxiety and Depression Scale

Table 2 Details of participant psycholinguistic profiles

Assessments		C1	P3	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
ALD	w	8	8	8	8	8	8	8	8	8	7	8	6
	nw	8	8	6	8	7	8	6	7	5	7	7	5
VLD	w	8	8	8	8	8	8	8	8	8	8	5	6
	nw	8	8	6	8	7	8	6	8	8	7	7	8
Categorisation	s	15	15	15	15	15	15	15	15	15	15	15	15
	p	15	15	15	14	15	15	15	15	14	15	10	15
	w	15	14	15	15	14	15	15	14	15	15	12	13
Repetition	w	8	8	7	8	8	8	8	8	6	6	8	0
	nw	6	8	3	8	7	8	6	5	3	1	5	0
Naming		12	12	6.5	12	12	11.5	12	5	6	5	9.5	0
Spelling	w	6	6	6	6	5.5	5	5	3	5.5	0	0.5	0
	nw	3	3.5	2	1.5	2.5	4	3.5	0	2.5	0	0	0

Reading aloud	w	7	7	2	8	7	8	8	1	2	3	4	0
	nw	5	4	0	5	4	6	4	0	1	0	0	0
Aphasia Score	%	93.2	93.6	74.8	93.6	90.2	95.9	89.8	72.9	74.4	66.9	68.4	51
Attention		WNL	Mild	WNL	WNL	Mod	Mild	WNL	WNL	WNL	Mod	Mild	Mod
Memory		WNL	Mild	Mod	Mod	Mod	Mod	Mod	Sev	Mod	Sev	Mod	Sev
Executive function		WNL	Mild	WNL	WNL	WNL	Mild	WNL	WNL	WNL	Mod	Mild	Sev

W = words, NW = nonwords, S = shapes, P=pictures, ALD=Auditory Lexical Decision, VLD= Visual Lexical Decision, Repetition n=8 words and 8 nonwords. Spelling n=12, Naming n=12, Categorisation n= 15 shapes, 15 pictures, 15 words. WNL = within normal limits, Mod= moderate, Sev -= severe

Table 3

Examples of novel words with skills, habitat and food preferences (from session 1)

Novel words	Skills	Habitat/ food
FUTARG	FREEZES ITS ENEMIES	TREES & FRUIT
SHORPINE	CREATES HARMONY	SEA & FISH
DREEPLE	MUTATES	TREES & FRUIT
PENTAR	INVISIBLE CLOAK	SEA & FISH
SARTLE	SHOOTS FIREBALLS	TREES & FRUIT

See McGrane (2006) for images of creatures

Table 4 Assessments used to tap and measure new learning

Task	Description
Cold recall	Spoken and written recall of names, skills, habitat and food of each creature from its image
Lexical decision	Identification of familiar and non-familiar words when listening to and reading lists of words
Syllable matching	Linking written syllables to form the new word forms
Categorisation	Linking each creature to habitat / food (pictures and words)
Word-picture matching	Spoken and written matching of creature picture to creature name
Picture-syllable matching	Choosing number of syllables in creature's name from its image
Reading aloud	New word forms are read aloud

Table 5 Raw and percentage scores for immediate recall tasks

Participant	Raw score (total = 320)	Percentage correct
C1	318	99
P3*	253	90
C2	284	89
C3	266	83
C4	215	67
C5	199	62
C6	189.5	59
C7	155	48
C8	154.5	48
C9	76	24
C10	50	16
C11	49	15

*P3 not assessed on picture-syllable matching or reading aloud therefore total possible raw score was 280

Table 6 Scores for non-verbal assessment tasks (immediate recall) (from possible score of 100)

Original ranking	Non-verbal ranking	Word-picture Matching (name)		Word-picture Matching (skill)		Syllable matching	Total number correct
		Listen	Read	Listen	Read		
C1	C1	20	20	20	20	20	100
P3	C2	20	20	20	20	20	100
C2	P3	20	20	18	20	16	94
C3	C4	20	20	20	18	16	94
C4	C3	16	15	20	18	20	89
C5	C5	18	14	11	8	15	66
C6	C7	11	11	11	13	13	59
C7	C6	8	8	11	15	15	57
C8	C8	12	13	11	6	11	53
C9	C9	3	5	7	7	9	31
C10	C10	9	8	7	1	4	29
C11	C11	1	8	3	4	4	20

Table 7 Raw and percentage scores for delayed recall task

Participant	Raw score (total = 320)	Percentage correct	Percentage of items retained from immediate recall
C1	263.5	82	83
C3	210.5	66	80
C2	188	59	66
P3*	169	53	49
C5	159	50	80
C4	144	45	67
C6	132	41	70
C7	110.5	35	71
C8	102	32	66
C9	56	17.5	74

*P3 not assessed on picture-syllable matching or reading aloud therefore total possible raw score was 280

Table 8 Amount of time and learning strategies employed during Independent Learning Time (ILT)

	C1	P3	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
Self-organise learning?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
% of ILT time used	100	100	100	100	100	91	63	45	46	71	46	50
% learning score	99	90	89	83	67	62	59	48	48	24	16	15
Read details								√				
Read assessments		√										
Complete practise assessments	√		√						√	√	√	√
Play audio recording	√	√ S4 only	√	√	√	√	√	√	√	√	√	√
List new words	√		√	√	√	√	√					
List new skills	√	√	√	√								
Repeat under breath	√			√		√						
Categorise words					√							

100% = 30 minutes

S= session number

Table 9 Total recall of stimuli for immediate and delayed recall (new words)

Immediate recall			Delayed recall		
Creature	Times recalled	Session number	Creature	Times recalled	Session number
futarg	134	1	zoodop	86	3
curvol	128	4	silvark	86	3
feetokel	126	2	dreeple	83	1
maytor	126	2	futarg	80	1
vintrok	125	3	snaitle	80	4
snaitle	121.5	4	curvol	80	4
shorpine	120	1	popkinel	79	3
lundril	119	2	wangor	79	4
traigol	119	4	maytor	79	2
wangor	118.5	4	feetokel	77	2
yamtork	118	4	pentar	77	1
zoodop	117	3	yamtork	75	4
popkinel	116	3	sartle	73.5	1
sartle	114	1	shorpine	72.5	1
hamekin	114	3	vintrok	72	3
pentar	114	1	ponchino	71	2
ponchino	112	2	traigol	67	4
dreeple	112	1	junfliz	66	2
silvark	108	3	lundril	65	2
junfliz	106.5	2	hamekin	60.5	3

Table 10 Total recall of tasks for immediate (IR) and delayed (DR) recall assessments

	IR		DR
Recognise (A)	165	Recognise (A)	168
Syllable completion	163	Picture/syllable	158
W-P match (name) O	162	Recognise (O)	146
Recognise O	159	Syllable completion	140
W-P match (skill) A	159	W-P match (name) (O)	119
W-P match (name) A	158	W-P match (name) (A)	107
Categorisation I	153	W-P match (skill) (A)	103
Picture/syllable	150	Read aloud	92
W-P match (skill) O	148	W-P match (skill) (O)	88
Food	139	Name (written)	74
Name (written)	128	Categorisation (I)	67
Categorisation O	123	Habitat	64
Read aloud	113	Food	62
Habitat	109	Categorisation (O)	54
Name (verbal)	97	Name (verbal)	42
Skills	71.5	Skills	16.5