Imageability & Frequency Visual Lexical Decision:

Instructions for Use

This task looks for effects of imageability and frequency (and their interaction) in deciding whether a written string of letters is a word. Half of all the words are high in imageability and half are low in imageability. Half of the words in each set are high in word frequency and half are low in frequency. There are therefore 4 word-sets: High Imageability-High Frequency; High Imageability-Low Frequency; Low Imageability-High Frequency; Low Imageability-Low Frequency. Words are matched across groups (on a one-to-one basis) as far as possible for grammatical class and number of letters, syllables and morphemes. Nonwords are derived from words by changing one or more letters, while preserving orthotactic and phonotactic regularity.

An expanded set of words is also used in oral reading [31], auditory lexical decision [5] and repetition tasks [9].

Descriptive Statistics (for 26 control subjects):

High Imageability High Frequency	(n = 15)	Mean = 14.79	Std. Dev. = 0.51
High Imageability Low Frequency	(n = 15)	Mean = 14.58	Std. Dev. = 0.58
Low Imageability High Frequency	(n = 15)	Mean = 14.92	Std. Dev. = 0.41
Low Imageability Low Frequency	(n = 15)	Mean = 14.71	Std. Dev. = 0.75
Nonwords	(n = 60)	Mean = 59.88	Std. Dev. = 0.45

Suggestions for Where to go next: Note that patients who show imageability effects in oral reading and comprehension can perform within the normal range on a visual lexical decision task like this one (eg. Morton, J. & Patterson, K.E. (1987), In **Deep Dyslexia** (Eds) Coltheart, M., Patterson, K.E. & Marshall, J.C. London: Routledge & Kegan Paul). This suggests that visual lexical decisions <u>need</u> not be based on semantic information, but can be based on other criteria (eg. whether the letter string is represented within the visual input lexicon).

A significant effect of imageability in visual lexical decision implies that the subject is using the semantic system on which to base a decision. In this case, one might expect to find an imageability effect in comprehension (eg. Written Synonym Judgements [50]; Auditory Synonym Judgements [49]). Find out whether an imageability effect appears using the same materials in another modality (Auditory Lexical Decision [5]). Also investigate whether an imageability effect can be found in Oral Reading [31].

If the subject shows a significant effect of frequency in Visual Lexical Decision, test performance using the same materials in Oral Reading [31]. Frequency effects in both tasks may suggest a common point of breakdown. To confirm or disconfirm your hypothesis about the locus of impairment, look for frequency effects in other modalities (eg. Auditory Lexical Decision [5]; Repetition [9]). Compare picture naming and reading aloud on the Frequency Picture Naming task [54].

If visual lexical decision performance is poor across the board, even with high frequency and/or high imageability word-sets, try easy Visual Lexical Decision with legal and illegal letter strings [24].

PALPA

Visual Lexical Decision Task

Name:	Date:

Only some of these items are real words. Others are 'made-up'
words. **Please mark the words you recognise.**

picture	hopsitle	episode	fide
calt	pig	tanacco	pline
elbow	drim	trabite	minner
prath	thought	mercy	dalour
potato	clue	radio	wembow
night	puct	spider	pupil
church	baranter	clenth	deed
onion	plen	gravy	marriage
folly	fict	loment	lutter
reash	purpose	thing	idia
quality	bonus	gravity	weast
school	hend	slape	minacle
system	opinion	alcohol	dunkey
mither	pill	foaster	trantor
biffle	hand	character	clee

Visual Lexical Decision Task

Name:	Date:

Only some of these items are real words. Others are 'made-up' words. **Please mark the words you recognise.**

effort	fire	tribute	vallige
fact	dend	valour	idea
funnel	purpise	gramy	tractor
length	plea	pheory	ragio
manner	itony	pupit	realm
pisture	slope	merly	shality
window	treason	drister	drum
cart	halocle	boncept	miracle
hospital	nirth	pell	crasis
binus	pib	audience	attitude
settion	wrath	letter	opunion
felly	pitaro	principle	prought
apisade	plane	student	moment
slurch	otion	feather	hetal
pact	mother	sprool	grivity

Name:	Date:

Marking Instructions: Circle incorrect response in the appropriate column
(**W** for incorrect word response and **NW** for incorrect nonword response).

#	Target	Response			#	Target	Response		
1	**picture**	HI HF		W	31	**gravy**	HI LF		W
2	hopsitle		NW		32	**marriage**	HI HF		W
3	**episode**	LI LF		W	33	**folly**	LI LF		W
4	fide		NW		34	fict		NW	
5	calt		NW		35	loment		NW	
6	**pig**	HI LF		W	36	lutter		NW	
7	tanacco		NW		37	reash		NW	
8	pline		NW		38	**purpose**	LI HF		W
9	**elbow**	HI LF		W	39	**thing**	LI HF		W
10	drim		NW		40	idia		NW	
11	trabite		NW		41	**quality**	LI HF		W
12	minner		NW		42	**bonus**	LI LF		W
13	prath		NW		43	**gravity**	LI LF		W
14	**thought**	LI HF		W	44	weast		NW	
15	**mercy**	LI LF		W	45	**school**	HI HF		W
16	dalour		NW		46	hend		NW	
17	**potato**	HI LF		W	47	slape		NW	
18	**clue**	LI LF		W	48	minacle		NW	
19	**radio**	HI HF		W	49	**system**	LI HF		W
20	wembow		NW		50	**opinion**	LI HF		W
21	**night**	HI HF		W	51	**alcohol**	HI LF		W
22	puct		NW		52	dunkey		NW	
23	**spider**	HI LF		W	53	mither		NW	
24	**pupil**	HI LF		W	54	**pill**	HI LF		W
25	**church**	HI HF		W	55	foaster		NW	
26	baranter		NW		56	trantor		NW	
27	clenth		NW		57	biffle		NW	
28	**deed**	LI LF		W	58	**hand**	HI HF		W
29	**onion**	HI LF		W	59	**character**	LI HF		W
30	plen		NW		60	clee		NW	

Visual Lexical Decision Imageability & Frequency: Presenter's Form 2

Name:	Date:

Marking Instructions: Circle incorrect response in the appropriate column
(**W** for incorrect word response and **NW** for incorrect nonword response).

	Target	Response				Target	Response		
61	**effort**	LI HF		W	91	boncept		NW	
62	**fire**	HI HF		W	92	**miracle**	LI LF		W
63	**tribute**	LI HF		W	93	**hospital**	HI HF		W
64	vallige		NW		94	nirth		NW	
65	**fact**	LI HF		W	95	pell		NW	
66	dend		NW		96	crasis		NW	
67	**valour**	LI LF		W	97	binus		NW	
68	**idea**	LI HF		W	98	pib		NW	
69	**funnel**	HI LF		W	99	**audience**	HI HF		W
70	purpise		NW		100	**attitude**	LI HF		W
71	gramy		NW		101	settion		NW	
72	**tractor**	HI LF		W	102	**wrath**	LI LF		W
73	**length**	LI HF		W	103	**letter**	HI HF		W
74	**plea**	LI LF		W	104	opunion		NW	
75	pheory		NW		105	felly		NW	
76	ragio		NW		106	pitaro		NW	
77	**manner**	LI HF		W	107	**principle**	LI HF		W
78	itony		NW		108	prought		NW	
79	pupit		NW		109	apisade		NW	
80	**realm**	LI LF		W	110	**plane**	HI HF		W
81	pisture		NW		111	**student**	HI HF		W
82	**slope**	HI LF		W	112	**moment**	LI HF		W
83	merly		NW		113	slurch		NW	
84	shality		NW		114	otion		NW	
85	**window**	HI HF		W	115	**feather**	HI LF		W
86	**treason**	LI LF		W	116	hetal		NW	
87	drister		NW		117	**pact**	LI LF		W
88	**drum**	HI LF		W	118	**mother**	HI HF		W
89	**cart**	HI LF		W	119	sprool		NW	
90	halocle		NW		120	grivity		NW	
	W (Hits)			/60		NW (Hits)			/60
	W (Misses)					NW (False Pos)			

Imageability & Frequency Lexical Decision: Marking Form for Words

Name:		Date:	

Marking Instructions: The form should be used for marking spoken and written versions of this test, thereby allowing a direct comparison between auditory and visual modalities.

A High I / High Freq Words	Auditory	Visual	B High I / Low Freq Words	Auditory	Visual
audience			alcohol		
church			cart		
fire			drum		
hand			elbow		
hospital			feather		
letter			funnel		
marriage			gravy		
mother			onion		
night			pig		
picture			pill		
plane			potato		
radio			pupil		
school			slope		
student			spider		
window			tractor		
C Low I / High Freq Words	Auditory	Visual	D Low I / Low Freq Words	Auditory	Visual
attitude			bonus		
character			clue		
effort			deed		
fact			episode		
idea			folly		
length			gravity		
manner			mercy		
moment			miracle		
opinion			pact		
principle			plea		
purpose			realm		
quality			treason		
system			tribute		
thing			valour		
thought			wrath		
High Frequency (A + C)		/30	Low Frequency (B + D)		/30
High Imageability (A + B)		/30	Low Imageability (C + D)		/30

Imageability & Frequency Lexical Decision: Marking Form for Nonwords

Name:	Date:

Marking Instructions: The form should be used for marking spoken and written versions of this test, thereby allowing a direct comparison between auditory and visual modalities.

Nonwords	Auditory	Visual	Nonwords	Auditory	Visual
biffle			calt		
fide			drim		
hend			dunkey		
hetal			foaster		
hopsitle			gramy		
lutter			halocle		
mither			otion		
nirth			pell		
pisture			pib		
pline			pitaro		
ragio			pupit		
slurch			slape		
sprool			tanacco		
vallige			trantor		
wembow			weast		
Nonwords	Auditory	Visual	Nonwords	Auditory	Visual
baranter			apisade		
boncept			binus		
clenth			clee		
crasis			dalour		
drister			dend		
fict			felly		
idia			grivity		
loment			itony		
minner			merly		
opunion			minacle		
pheory			plen		
prought			prath		
purpise			puct		
settion			reash		
shality			trabite		
Number Correct					/60
Number Incorrect					/60