

## **Robo-Dog Word List**

In Robo-Dog, participants progress through 2 tasks, the phonemic task and the semantic task, as follows:

Within the phonemic task, the participant progresses through 5 levels. In the early levels, Robo-Dog presents words in which the speech sounds have been digitally altered using patented methods (including selective intensity increases and duration extensions) to provide enhanced learning opportunities. As the participant progresses through the levels, Robo-Dog decreases this processing, and eventually, in level 5, presents the words using natural speech. The participant progresses through all stimuli at each speech processing level.

Within each level, the participant progresses through 6 groups of words. The words are grouped to become progressively more difficult based on the following 3 factors:

- Difficulty of alternate responses (1 vs. 3 minimal pairs)
- Target phoneme difficulty
- Target phoneme position (initial vs. final)

Within the semantic task, all stimuli are presented at the natural speech level. The participant progresses through 4 groups of words. The words are grouped based on vocabulary type:

- Math vocabulary: Number sense
- Math vocabulary: Arithmetic and geometry
- Science vocabulary: Life sciences
- Science vocabulary: Earth sciences



## **Phonemic Task**

**Group 1** 

Target Word	Alternate Response	Alternate Response	Alternate Response
word	1	2	3
knee	bee	vase	base
bee	knee	base	vase
bee	me	dip	zip
me	bee	zip	dip
ache	lake	sink	think
lake	ache	think	sink
ache	rake	bee	me
rake	ache	me	bee
sink	think	piece	peach
think	sink	peach	piece
dip	zip	face	vase
zip	dip	vase	face
bear	bell	base	face
bell	bear	face	base
piece	peach	ache	rake
peach	piece	rake	ache

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Target Word	Alternate Response 1	Alternate Response 2	Alternate Response 3
day	they	thorn	torn
they	day	thorn	torn
tack	shack	day	they
shack	tack	they	day
lake	rake	me	knee
rake	lake	me	knee
base	face	bear	bell
face	base	bell	bear
face	vase	ache	lake
vase	face	sack	shack
vase	base	shack	sack
base	vase	bee	knee
lawn	yawn	cash	catch



Group 2 (continued)

Target Word	Alternate Response 1	Alternate Response 2	Alternate Response 3
yawn	lawn	catch	cash
knee	me	bug	buck
me	knee	buck	bug
rake	wake	sip	zip
wake	rake	zip	sip
rung	young	sauce	saws
young	rung	saws	sauce
sack	shack	fan	fang
shack	sack	fang	fan
sip	zip	rake	wake
zip	sip	wake	rake
thorn	torn	mouse	mouth
torn	thorn	mouth	mouse

Group 3			
Target Word	Alternate Response 1	Alternate Response 2	Alternate Response 3
safe	save	dip	sip
save	safe	sip	dip
bug	buck	knee	me
buck	bug	me	knee
foam	phone	ache	wake
phone	foam	wake	ache
fan	fang	sauce	saws
fang	fan	saws	sauce
mouse	mouth	thorn	torn
mouth	mouse	torn	thorn
sauce	saws	rung	young
saws	sauce	young	rung
cash	catch	lawn	yawn
catch	cash	yawn	lawn
pat	path	cheese	chief
path	pat	chief	cheese
breathe	breeze	swim	swing
breeze	breathe	swing	swim
bathe	bays	foam	phone
bays	bathe	phone	foam
fuzz	fudge	breathe	breeze
fudge	fuzz	breeze	breathe
pays	page	fan	fang
page	pays	fang	fan
swim	swing	fuzz	fudge
swing	swim	fudge	fuzz



**Group 4** 

Target	Alternate	Alternate	Alternate
Word	Response	Response	Response
VVOIG	1	2	3
dip	sip	chip	zip
sip	dip	chip	zip
ache	wake	lake	rake
wake	ache	lake	rake
lake	wake	rake	ache
wake	lake	rake	ache
chip	dip	sip	zip
dip	chip	sip	zip
chip	sip	zip	dip
sip	chip	zip	dip
pack	shack	tack	sack
shack	pack	tack	sack
pack	tack	shack	sack
tack	pack	shack	sack
cheese	chief	cheek	cheer
chief	cheese	cheek	cheer
peas	peach	piece	peel
peach	peas	piece	peel

	Group 3			
Target Word	Alternate Response 1	Alternate Response 2	Alternate Response 3	
tack	shack	pack	sack	
shack	tack	pack	sack	
two	shoe	Sue	Z00	
shoe	two	Z00	Sue	
day	they	J	hay	
they	day	J	hay	
doze	those	toes	hose	
those	doze	toes	hose	
lake	rake	wake	ache	
rake	lake	wake	ache	
vase	base	face	chase	
base	vase	face	chase	
base	face	vase	chase	
face	base	vase	chase	
face	vase	base	chase	
vase	face	base	chase	
lawn	yawn	dawn	fawn	
yawn	lawn	dawn	fawn	
knee	me	bee	D	
me	knee	bee	D	



Group 5 (continued)

Target Word	Alternate Response 1	Alternate Response 2	Alternate Response 3
rake	wake	lake	ache
wake	rake	lake	ache
rung	young	sung	tongue
young	rung	sung	tongue
sack	shack	pack	tack
shack	sack	pack	tack
sip	zip	dip	chip
zip	sip	dip	chip
Sue	Z00	shoe	two
Z00	Sue	shoe	two
thorn	torn	corn	horn
torn	thorn	corn	horn

Group 6			
Target Word	Alternate Response	Alternate Response	Alternate Response
	1	2	3
safe	save	sail	sage
save	safe	sail	sage
tack	tag	tap	tan
tag	tack	tap	tan
bug	buck	bud	bus
buck	bug	bud	bus
comb	cone	coat	core
cone	comb	coat	core
sum	sun	sung	sub
sun	sum	sung	sub
foam	phone	foal	four
phone	foam	foal	four
lime	line	light	lion
line	lime	light	lion
long	lawn	log	lock
lawn	long	log	lock
wing	win	wig	wink
win	wing	wig	wink
sung	sun	sum	sub
sun	sung	sum	sub
rung	run	rub	rug
run	rung	rub	rug
tongue	ton	tub	touch
ton	tongue	tub	touch
bass	bath	bat	back
bath	bass	bat	back
piece	peas	peach	peel



Group 6 (continued)

	Group o (continuea)		
Target Word	Alternate Response 1	Alternate Response 2	Alternate Response 3
peas	piece	peach	peel
sauce	saws	sock	sob
saws	sauce	sock	sob
cash	catch	cat	cast
catch	cash	cat	cast
wash	watch	wasp	waffle
watch	wash	wasp	waffle
toot	tooth	tube	tool
tooth	toot	tube	tool
pat	path	pack	pad
path	pat	pack	pad
bathe	bays	base	bear
bays	bathe	bear	base
pays	page	pail	pear
page	pays	pail	pear



## **Semantic Task**

Math Vocabulary: Number Sense

Target Word	Alternate Response	Alternate Response	Alternate Response
	1	2	3
penny	nickel	dime	quarter
nickel	penny	dime	quarter
dime	penny	nickel	quarter
quarter	penny	nickel	dime
zero	ten	one hundred	one thousand
one	zero	ten	one hundred
ten	one	one hundred	one thousand
one hundred	zero	one	ten
one thousand	one	ten	one hundred
more	less	most	least
less	more	most	least
most	more	less	least
least	more	less	most
dozen	single	half	pair
single	dozen	half	pair
half	dozen	single	pair
pair	dozen	single	half

**Math Vocabulary: Arithmetic and Geometry** 

	Alternate	Alternate	Alternate
Target Word	Response	Response	Response
	1		3
numbers	plus	minus	equal
plus	numbers	minus	equal
minus	numbers	plus	equal
equal	numbers	plus	minus
add	subtract	count	measure
subtract	add	count	measure
count	add	subtract	measure
measure	add	subtract	count
circle	square	rectangle	triangle
square	circle	rectangle	triangle
rectangle	circle	square	triangle
triangle	circle	square	rectangle
cone	cube	sphere	pyramid
cube	cone	sphere	pyramid
sphere	cone	cube	pyramid
pyramid	cone	cube	sphere
length	width	height	distance
width	length	height	distance
height	length	width	distance
distance	length	width	height



Science Vocabulary: Life Sciences

Target Word	Alternate Response 1	Alternate Response 2	Alternate Response 3
leaf	flower	seed	root
flower	leaf	seed	root
seed	leaf	flower	root
root	leaf	flower	seed
ear	eye	nose	mouth
eye	ear	nose	mouth
nose	ear	eye	mouth
mouth	ear	eye	nose
arm	leg	hand	foot
leg	arm	hand	foot
hand	arm	leg	foot
foot	arm	leg	hand
wing	beak	claw	tail
beak	wing	claw	tail
claw	wing	beak	tail
tail	wing	beak	claw
skin	fur	feathers	scales
fur	skin	feathers	scales
feathers	skin	fur	scales
scales	skin	fur	feathers

Science Vocabulary: Earth Sciences

Target Word	Alternate Response	Alternate Response	Alternate Response
	1	2	3
cloud	dew	fog	rainfall
dew	cloud	fog	rainfall
fog	cloud	dew	rainfall
rainfall	cloud	dew	fog
earth	moon	space	star
moon	earth	space	star
space	earth	moon	star
star	earth	moon	space
desert	iceberg	valley	mountain
iceberg	desert	valley	mountain
valley	desert	iceberg	mountain
mountain	desert	iceberg	valley