

Integrated Phonological Awareness

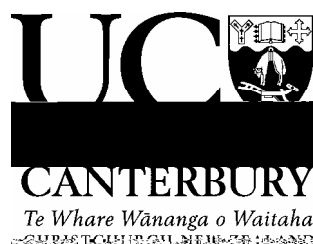
An intervention program for preschool children with

Speech language impairment

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## A o *rogua* a *lors*

**Professor Gail Gillon** e Po ce C nce o , Co e e of Ed c on, e n e y of C ne y, C c c , Ne Ze nd o e y e e c e nd ec e n e Dep en of Co nc on D ode e n e y of C ne y, e co peed e nde d e q f c on n Ne Ze nd n peec n e e py, ed c on, nd e c n nd co peed e P D n peec nd Me n e n e y of een nd, A P ofe o on e no n n e n on y fo e e e c n e d n d o de nd e p e e n on of e d n d o de fo yo n c d e n Me nno e o n p ono o c e n e n e n on e c e ed p c n e n on cc nd c no ed ed o p e o e e c d Me o een de y p ed n e d n n e n on o n n peec n e p o o y, ed c on, nd e d n e p e e n e d n e o c onfe nce p e e n on nd e y no e d d e e o o e o d n c d n n Ne Ze nd, A , A, C n d , p n, En nd, nd nd n e c o n on of e con on o e p ofe on, P ofe o on e c e n y de e o of e A e c n peec L n e Me n A o c on Con c on c n e y c n z e e ed c on c n e y c n z peop e on

**Brigid McNeill** nee Mo y o d B c e o De ee c ono nd M e De ee D nc on n peec nd L n e e py e n e y of C ne y nd ed e P D e fo e n on B d ned e c n c e p e nce o n peec n e e p yo n c d e n co nc on d o de nd ec ed n peec n e e py M ey n e y, Ne Ze nd B d' nno e e e c e n n e effe c e n e of p ono o c e n e n e n on o d nce o peec nd e n n e de e op e n n c d e n C d ood Ap of peec p d y n n n e n on e n on B d co e nce po doc o fe o p n e n e f e n peec nd n e e py, c oo of P y c o o c e nce , n e y of M n c e e ,

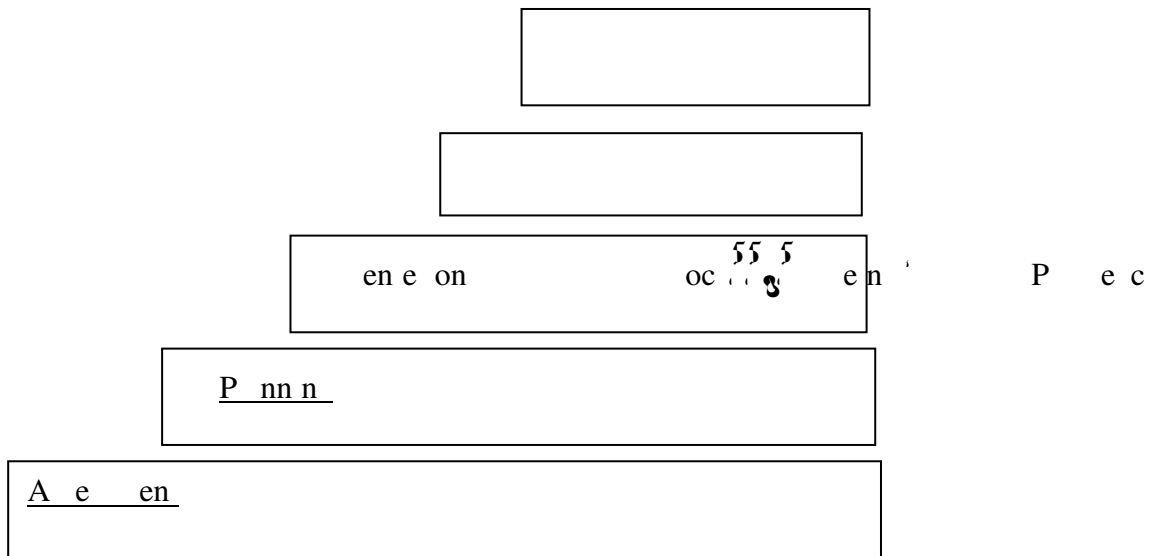
## Introduction

↓ ne ed p ono o c ene ne en on PA de ned fo e neo  
f c on of peec pod, c on, p ono o c ene nd e e o, nd no ed e n  
p e c oo nd yo, n c oo ed c d en peec nd n, e p en ↓ e  
ne en on ed on c e p e en ed n e on , Mo y nd on,  
nd McNe ne en on de ↓ e f nd n fo e e e e c

- p o n c d en' peec n e y one no nece y e n  
p o ed p one e ene o p o ed e d n nd pe n pe fo nce e ,  
c d en peec n e p en eq e pec f c n on n p one e  
ene on, on, on,

### Intervention framework development

↓ e ene f e o fo n e en on ed on e on ↓ on, f e  
ep f e o fo p ono o c ene n e en on A y of e o con de  
n f e o p e en ed o p o de c o nd no ed e fo e p o



### Assessment

A e en  
↓ o on o e y p ono o c ene de e op en  
↓ o e e ned fo c o e e e ce of pec f c n e en on  
ed f c n e y p ono o c ene de e op en

C ef con de on e en o e ype of e en ed nd e e n  
en on en o e p e,

- e ec n p ono o c ene e en eq e non e e pon e  
nece y fo c d en n n e e peec
- En n op en n cond on n e p ono o c ene e n  
en on en po n fo c d en, p c y c c fo yo n c d en  
peec n e p en o y e oc ed e n p o e
- ↓ e e of c e p c e ce o p p e en n d o y e p  
c p e yo n c d en' en on
- En n o n e o y c p c y no o e o ded fo c d en o e no n o  
e ed p ono o c o e e o y no e po n con de on ↓ e  
e of e o d of ee o fo p one e eco ended fo  
e e c d en on e ,

↓ e d f o p o n o o c e n e e e n n e e



## Intervention

Differences of children's processes of development



e po e ne c on e een po en nd en n e de e op en e den n  
c d en yp c peec nd n e , o e ffo ded o c d en  
peec n e p en

***Materials included with this program***

ne en on n fo p n n o nd n n  
CD e

## Program aims and structure

↓    n e    ed p ono o c    ene    n e    en on fo c    d en    peec    p    en

## **Baseline Assessment**

proposed components of the assessment process, including,

## Pre-Program Activities

Pre-Program Activities  
Pre-Program Activities  
Pre-Program Activities

Pre-Program Activities

Pre-Program Activities

Pre-Program Activities

Pre-Program Activities



... s ood y yo' e e d o nd e e n n n of e o d Le' en n



# Speech production

↓ e fo o n ec on peec pod c on e od e, od o e ed n  
 e c e nd con o od e e od e e ed, e no nc ded n ny of e  
 ne en on e on Pc ec d nd e od e po ded n po fo  
 co on peec e o p en ↓ e CD con n o e pc e nd o d y e ed  
 ↓ e e p od de e op e e e o ce n e e nne po ded e  
 po e e e dd on pc e o ec p of nd o e pc e fo en e  
 peec od, con o od, e en on nd end n o d, nd e e o nd o d  
 e

↓ e peec e c d e e od en nde ne A e, o e e, y  
 ef o en ec den e en n o e e p one e e e n n of e od nd  
 no on y n e nfo on o ce e e pon e o e e occ on e p ned

**Target speech pattern word lists:****Bilabial Consonant-Vowel Structure**

Trained Items	Untrained Items
P e	Pe

**Error Pattern: Early Stopping**

Ac e e e ed c on of n d

**Error Pattern: Backing**

Ac e e e ed c on of n o fo d o

Trained Items	Untrained Items
Doo	↓ e
↓ e	↓ p
↓ o	↓ n
↓ n	↓ n
↓	D n

## Program Activities

### Letter knowledge

**Aim:**

↓ o f c e no ed e of e e on p e ee

o one p e e p one e e on p e , , , p , n, d nd e co on p one e

**Therapist:** *This is the letter c and it can make a /k/ sound.  
 This is the letter s and it makes a /s/ sound.  
 This is the letter m and it makes a /m/ sound.*

E c c d e n o n e e n o n o e e e n d y n o n d

*Other games:*

P y n e o f e o e n f o c e e n e n d o n d o f e c e e e o e p e  
 e c d e q u e d o d e o o e o e e e e e o n d e c d  
 c e e o n d o n c e e o o e e c e d e p p o p e e e e c d  
 e q u e d o o o n o e e e e e o n d e c d c e e  
 o n d o n c e e o e d o n o e p p o p e e e  
 n d n e e e n e o e e o n d n e

**Therapist** *Find the one that says mmm c d e e e p o e z e  
 e e o c e d o n e e y e e e e Yes, you've found the mmm sound.  
 You try that sound? Great talking. This is the letter m p o n n o e p o e  
 z e e e that makes the mmm sound. Let's try another one.*

**Progressing the activity**

d 5 o n 5 5 n o 555

phone they needed you connect between the phone and  
the computer

Lesson

Children need to be able to use the phone  
to communicate with people

*Making a sound with a card*

**Therapist:** This is the letter s. It makes a /s/ sound. Place the  
letter on the big card with the letter /s/. See if you can find the  
card. Look at the letters carefully- do they look the same?

This is the letter c. It can make a /k/ sound. Tell batman what sound the letter makes



~~On~~ ~~is~~ ~~so~~ ~~war~~  
 ↓ e, nne e Poo nde en ecn o e ed o ec ee o nd no ed e  
 nd e e c n ↓ ee co p e c e e ey c e o p e c oo c d en nd



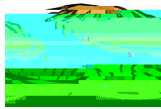
star



man



stop



pie



stem



fan

Le e e nc ded n e no o d p o ed co e ep ced n pe  
 f ce do n e , fo e o e o d e e e p f d c co d e ed e no  
 e p yed n e e nne dec ed o e ec d ce y c e e  
 o d ey fnd on e o d

“Yes you’ve picked up the letter s, s makes a /s/ sound. Do you have any words on your board that start with the letter s that makes a /s/ sound”.  
 Mo d e e e nde e c o d  
 fo c n f nece y C d e e op nd enco ed o c e  
 e o d cc ey pp op e o pec c on o

*L' n a c l ng w l n a a s w o a n ' n ac y*

A o eep one e np on c y  
 E pe f e c d' e e e ed on de e on of n e c e , e e  
 o d co d e 'stop' e con p con o d e top' ec n c n e e o d  
 on e e o d n e o d p n  
 C n c n nd e e o d c d en n on o c n f on of e  
 e o d

**Therapist:** *This word says 'stop'. A red traffic light means to stop n e e o d  
 n en ence See the letter s at the start of the word. Come and point to the*

epe e c y o e n p con e ,c oo oon e e  
one e e c n e c n ed, dded o de e ed o c e e e o con p

No e ↓ e c d en e no e pec ed o e d e o





Let's say the words together ( n c d en' en on o e p n nde e  
p c e

Key Man: Which one starts with the /k/ sound? (P o p nece y o  
e p n e yo p ono nce ey o y p c n e en o d nde e  
e e

Great work, key starts with a /k/ sound. Give the key to the crocodile to "crunch."

d y e end o ee o d

Let's find the word that starts with /k/: key man bus

e ec o d de o nd con nd y d nc n e e

Once c d en e e y den fy n e e o d, e peec c d o e o d  
en nde ne e, co e e o d o en ec d en e en n o e n nd  
nd c n den fy e o d o e ce of ef e e

en e c ocod e c nc ed p' e e







*son' - so a on*  
 Le e o nd o d  
 e e peec e e o nd o d o den fy f o nd n o d

**Therapist:** *Throw this block on the board C d o oc nd nd ne e e c What did it land on?*

**Child:** *sun*

**Therapist:** *Good. What is the first sound in sun?*

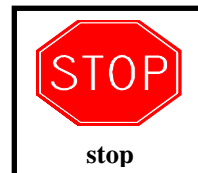
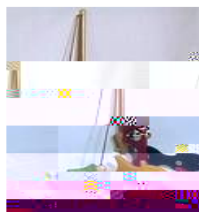
**Child:** *d*

**Therapist:** *Listen again sun...sun I hear a /s/ sound at the beginning of sun What sound do you hear at the beginning sun?*

C d  
 e p e ec peec c d of e o d en nde ne Loo e o d  
 ee e e e n n n Le' e d e o d o e e n e e o nd e  
 e n n n p o n n o e e e Ye n o nd

**Activity 2:** n fo o d con n peec p o d c on e nd n p one e den y e

**Therapist:** *Lets see what word each fish is hiding c d e e ne c f n o d o c c p c f p c e o d c d c ed). Tell me what you've found. Yes, you've found "stop" ( e c d enco ed o p o d ce e o d co ec y pe peec p o d c on o What sound does "stop" start with? Yes, stop starts with the sss sound. This is the letter s p o n n o e p c e o d c d and it makes the sss sound. Let's see what other words these fish are hiding".*



c y c n e de o e d f f c y n e c d o den fy e f n o nd n  
 e o yp n o peec c d nd co e n e en o d  
*son' - I 'n yan oca ay 'x 'ns on*

Animals	Food	Transport	Sport
do dee	co n c e	C n	ne
c e	pe pe	e	oo
e p	o p e	n c	d f
fo f n	c o p c p*		
o e o e	p		
co o	c ee e e		

\* e o d c p o f e c n e ed fo p c e

- den fy n con on n o nd n o d  
 e e p c e ee n e n c c e o y o p n o den fy e e o d  
 e e o nd

E p e An p c e ee

**Therapist:** *Here are some pictures of animals. Can you tell me what all the animals are called? C d e pond nd e e p d c e e n nece y Listen to the sounds in these words. Listen to the word Dog. Dog starts with a /d/ sound and deer starts with a /d/ sound. Dog, deer, they both start with a /d/ sound*

*Do cat and cow start with the same sound?*

**Child:** *Cat , cow, yes they start the same.*

**Therapist:**

enforce p one e den y y p y n e e p c e ee P ce  
e p c e ee e c d n ed con on n ee o on o e e P ce ee  
oc e ,c nd n e d de of e e ec d nd e p ce e c o e o  
den fy e p c e e o nd of e e e y p c n co o ed oc o  
co ne on e c p c e e e o nd

E pe

**Therapist:** Let's find all the pictures that start with /s/ ready go! ec d nd e p  
ce e c o e of nd p c e n nd p ce co o ed oc on  
e p c e What words did you find that start with /s/? A ec d o y  
e o d Mode e co ec c on nece y

Co ec e o pp op e o e pe ec d den fed o e n  
o nd

**Therapist:** Good try. I can hear a /s/ sound in that word but let's listen again: mouse.  
What sound does it start with: mouse. Yes, mouse starts with /m/ and the /s/  
sound is at the end.

epe e o e c e en n o efn o nd

E pe nd e p c e end o nd p e e e

o n c d n p c d e  
e e cond e of p one e den y c d c e ee no nd d c d P y  
o n e of nd e n , n po , food e ec P y n p e e  
c d n pp n on ec d en oc d e e o nd

Odd one o p one e den y e peec c d nd o ep ned o d

**Therapist:** I'm going to point to three pictures. Listen to the beginning of each word and  
tell me which one starts with a different sound  
bear bat car

**Child:** car

**Therapist:** Yes, car starts with a /k/ sound po n n o e e e c and bear and bat start  
with a /b/ sound po n n o e e e A ec d' p o e e  
c d of nd e e e oc o c en p one e of e c o d

Con ne n e o e nne e y of o nd En e yo e ep en  
of e e o d

cheese egg chop  
soup ear ea ec

epe e c y peec c d nd co e o e e o d en nde ne  
epe e c y fn peec e o nd

**Therapist:** Listen to the end of each word and tell me which one has a different  
end sound

Corn cake bike po n n o e pp op e p c e  
Ham cheese plum  
Pig dog seal e c



## **Blending**

### **Aim:**

↓ of c e c d en' y o end o nd o e e e on e e e e nd e  
p one e e e

### **Resources**

*Resources with program*

- peec e c d
- e en on end n o d

*Other resources:* P ppe c ce , ↓ n e , e o d nd e , c n' c pe o

P....ie s.....un

Me p e c d e n e n d e o d o e e n d e e c e c o e c p c e y  
e o d e d o e e o e p e c e p o o

Now let's teach parrot how to read the words. Enco e e c d e n o o  
p o e o d n d e e c p c e n d o e d e o d o y

Con n e e p e e c o d n n e e e p e e n n  
e o d e p o n d e c d e n e n c o d e p o y n  
n d e n e n d n e o d o e e o e p e c e p o o

**Answers**

n o d c e e c y y n o n n d n o n

A e y o p e d n n o n n c e q u e d e c d e n e n n  
e n o n d o n e c d c o p e n e n e c e o n A e o n  
p e e c c d e p c e d f c e d o n e e p p c p c d n d e e n e o n e  
e e e f o e c d e n o e e o d n d e c d e n o e e n  
d e o p e n e o n e n o d e e f o n d e n o n

E p e

n o e o n d e c

**Child:** stop o d n p o p n e e p e p e c d o p e n

**Therapists:** Help the train driver guess what words are at the train station e p p c

p o d n d o d f c n y f o e c d e n

oat. e e p e e n e o d e o n e e e e n d e

C d e n e e o d e e p n e c d o n d o e e f e y e

c o e c e c d e n e n y e o d o e e n d o e c d o e n

d e

**Magician's word**

n o d c e e c y y d c n c n n d c c

Y o n c d e n y e o d e p c n c p e n d e e n c d e z  
f o e c y e o d d e

e p e o d o n e o d n e p n e e n o e c e

**Therapist:** This word says "cat"

John can you show me the letter c that makes the /k/ sound o o e

c d e n e e e c Now John us0439( )-0.146571(c)585( )-0.14779285(s)-1.2312.7

Yiii ci ci cicapes Not"

John s tylt974( )250TJ -316.8672.80439(s)-1.2312( d02(t)k2(t)2s h:2ih27619(8)0.29.5850J-2/R0

- c f
- n n n f n
- Boo coo oo oo
- C f

o f n con on n de e on, end e on e e e e foc n on f n o nd e o d  
 n con on n e c d c n e y c e

*M at*  
*M ap*





## Segmentation

### Aims:

↓ of c e e c d' y o e en e pec o d e on e e e e o  
p one e e e

↓ of c e e c d' y o den fy e co ec c on of e e o d

Note P one e e en on nd n p on e e de e op n nd e  
y cq ed fe o e e d n nd pe n n c on ↓ e c e p e en ed n e e  
ec on e e e fo e e pec ed o n o e c p o p n nd f c n y e e p  
Once e c d en e een e po ed o e cy n c on o e d nced c e o  
de e opp one e e en on nd p one e n p on c nc ded n on  
p o o d e pp op e

### Resources:

*Resources included with program*

- e en on end n o d
-

epe c y C nd C C o d  
e en c e fo c den e n c e p o d c on e n CC

**Therapist:** Say star slowly for puppet  
s---t---ar (helping the child)  
y o y n o n p p p e e e of e e n n n of e  
o d

↓ e c n e p p p e o e d o d  
**Therapist:** o n o e p p p e e d o e o d  
e o z on e e o d n e y e p n

# slow

↓ e p e en e o d e n p e e e on e o d  
s...l....ow  
Let's read it slowly together for puppet: s...l.....ow (pointing to the letters as you segment.  
Try it again for puppet as puppet looks carefully at the word  
s....l.....ow  
Now let's say it together and see if puppet can read it with us "slow."

## Activities Level 2

e en on end n no de c ed n e end n ec on

**Therapist:** c d p c p c d Tell me the picture you found.  
**Child:** core e p e p p o p co ec c on)  
**Therapist:** Show me the sounds in core  
**Child:** c-ore ( n n do n o co o ed oc o ee ff n c ed)  
**Therapist:** Great and all together it says.....(p n e oc o e e )  
**Child:** tore  
**Therapist:** When you say 'tore', I hear a /t/ sound at the start. But core starts with a /k/ sound. 'Core', hear the /k/ sound at the start? Try saying 'core' with a /k/ sound.  
**Child:** Core  
**Therapist:** Great! I can hear the /k/ sound at the start.

P one e e en on nd end n ee

E p e P c e o e nd fo c o  
P ce e co o ed oc e op of one de of e p c e o n n e  
n od ce e p c e n o en on f Enco e e c den o e yo o  
ny e pe ence ey y e don f

**Therapist:** *Here is a picture of a horse on a farm. He'd like s*

ē ed o d fo ē en on Kay ē , Nick ē doc o , neck o ē nec ,  
back o ē c nd car y en o ē doc o n ē c

B y n food ē op c ē ē  
↓ o y n food ē pe ē o ē nd enco ē ē c d en o ē  
yo o ē n ey ē o y ē food o ē  
ē ed o d fo ē ē nc de Kay ē c ec o ope o , corn  
p c ē , cap p c ē , coin.

e n op n C C ē od  
C e ē pe oy o ē n o p o n e n  
↓ ē od o ē en Sam, sit, sun, soup

↓ c nd ē Be n  
D c ē o y ↓ c nd ē Be n Enco ē ē c d en o ē yo o ē

### Phoneme manipulation

#### Aim:

↓ of c e c d en' y o e o n d c n e n o d n d o e c o n e o c n n  
e e n o d c n e e o n d

#### Resources:

peec e o d  
e o d, e pen n d d e

#### Activities Level 1

n o n d c n e n d n p o n d c n e  
↓ e e c e c n e n o d c e d o n c e e c d e n e c q u e d o e e e o n d  
n o e d e o e e e c e n p o e p e o n e e c n e o  
n p e f o n d n o d e y n f e y e n e ,  
c f  
e e o d o n e e o d, o n e c d o p e o f f e e e, e e n e  
e e o n e o d n d e c d e n o d e n f y e o n d c n e n d o y e n e o d  
A d e c e d n e e c n e o d c y n d c n p o n e e e n d n e

n n p p p o p e o p e e c e o n o e o n y o n e c n e  
on, d d o n o d e e o n  
C c p p  
p n p n o n o p o p p, p o p  
Bee eep Moo oon fee, fee  
B n f d n f n e c

#### Activity example:

C d e n e n o e d n p e e c p c c e e f o e e o d c f n d n p e e c  
e d d e n d e o e c O n c e e c d e n e c o e c e d e p e e c e o d n d  
c e d e o d c o e c y e n e e c d e n n n c y n p n o n d c n e  
n e e o d

#### Therapist: Writing on the white board

*This word says star. Lucy come and show me the letter s. Now can you wipe off /s/ with your duster. We've made the word tar ↓ e d o e o d f o c o d e o n . Let's read the new word together... tar*  
*Now if I put the letter s back again we have..star. Read star together*  
*Mark, can make is say tar p o p o p e o f f e e e*  
*Jo, come and help me make it say star again- e p c d o e e e e e*  
e n n n No ' e e o d n d e n e e c o e  
y o e e n e y  
o n e o d  
*Let's say them together- star (see the /s/ at the beginning)*  
*tar (no /s/ at the beginning).*

Once c d e n e c o e c o p e e n e e e y c n p o e o o e d n c e d p o n e e  
n p o n c e e e o c d e c e d n o n



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