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Speech Sounds for Kids

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## What's it all about?

Speech Sound for Kids is an app that can provide many hours of speech therapy and early $\cdot$. literacy programming. Generally speaking, it's for children aged approximately 4 years 7 years, however younger and older children may find it useful depending on their individual // needs. The app helps children produce and explore the 22 consonant sounds of English using a multi-sensory approach. It also allows for the users' results to be recorded and sent to a their therapist or teacher. It's perfect for home practice!
Each of the sounds is represented by a friendly little character called a Sound Buddy (like Furry Fox above). With the help of the Sound Buddies, children learn to identify, discriminate and produce each sound - and they start to learn letter-links too! The program has a strong emphasis on developing phonemic awareness and articulatory awareness too. In time, children become familiar with more and more Sound Buddies, thus increasing in their phonemic awareness (speech sound awareness) and understanding of correct speech sound production. Listening and production tasks are provided for both single sounds and also for each of the sounds in words. There are over 300 fun pictures to help with word practice! Several sounds can be combined in tasks after they have been "studied" individually, allowing children to develop a strong awareness of the similarities and differences between sounds.

Did you know? Phonemic awareness (speech sound awareness) has a causal relationship to reading and spelling development. 1 When children become aware of individual sounds in words, they can begin to "map" them on to letters. Articulatory awareness is the knowledge of the articulation required for each sound. Studies show that individuals with dyslexia have weak articulatory awareness and training in this domain can increase performance on literacy tasks. 2

## The Goals of the App

1. To help children learn about and practise specific sounds required for clear speech.
2. To heighten children's awareness of sounds (phonemic awareness) which is vital for speech therapy tasks and which is a strong predictor for success in literacy-learning
3. To heighten children's articulatory awareness and auditory awareness of sounds (phonemes) which has been shown to assist children who have reading difficulties.

## Scope of the App

There are five main parts to the app which work towards achieving the goals listed above.
They are:

## Students will:

1.     - learn to identify and make a specific sound (as represented by a Sound Buddy)
2.     - learn to identify and make specific sounds in the first position of words
3.     - learn to distinguish and produce different sounds (from the current set of sounds being studied).
4.     - learn to distinguish and produce different sounds in the initial position of words (from the current set of sounds being studied)
5.     - build a bank of familiar sounds that can be identified and produced as single sounds and also in the initial position of words

## Starting Out

When you first begin the program, you will be asked to enable microphone access. This is important for the activities where children record their voices saying sounds and words.

## Student Selection



After enabling the microphone, you will be directed to the Student Selection page. Here, you can either click on an existing selection or add a new one by clicking on the ADD STUDENT button (see above). This will direct you to the Student Details page where you can click on a coloured button and enter the student's details.
*The student's first and last name must be entered.
*If you intend to send results to the child's therapist, enter their name and email address. This is optional.

* Up to nine students may be registered to use the app at any one time and their results recorded.
* To remove a student, click on the REMOVE STUDENT button.

A WORD ON THE VOLUME: This app is all about speech sounds so naturally it is important to have the sound settings at an optimum for easy listening. For most users the sound will be adequate when using the iPad alone. In noisy settings, however, ear phones can be used but PLEASE CHECK THE VOLUME LEVEL FIRST before allowing the child to begin. Keep in mind that some sections require the therapist to be listening at the same time in order to provide feedback.
Some users like to connect their iPad to Bluetooth speakers and listen to the app this way. (Go to iPad Settings, Bluetooth and ensure that it is turned to ON).

## Choosing Speech Sounds to Learn

## My Speech Sounds

To begin, click on the student's name. You will directed to the Sound Train. This is where you will display your current set of Sound Buddies to be studied. If the train is empty, you will be automatically directed to the My Sounds Selection page where you can select two to four Sound Buddies. Do this by simply pressing on the required tiles (they will highlight as blue). When you are happy with your selection, press the GO button to return to the train. It should now be filled with the Sound Buddies you selected. (You can select any other four at another time if you wish!) If you are returning to the app and wish to select new sounds, simply click on the COG icon at the top and you will be directed to My Sounds Selection.


The Sound Train displays the current sounds to be studied by displaying the corresponding Sound Buddies in the carriage windows. There must be 2-4 Sound Buddies in the train at any one time.
When the carriage windows are full, the student is ready to begin exploring the sounds.

## WHICH SOUND BUDDIES DO I CHOOSE?

Your selection of Sound Buddies to study depends on your reason for using the app. For early literacy programming, all Sound Buddies should be systematically studied. Work through them 2,3 or 4 at a time. For sound errors, the sound that is difficult to make may be chosen along with the sound that is being used in its place. (For example, the $/ \mathrm{I} /$ sound and the $/ \mathrm{y} / \mathrm{sound}$. The app will show the child how to produce the tricky sound and how it differs (in sound and production) from the sound they are using as a substitute. If you are not sure which sounds to work on first, contact a Speech Pathologist or SLP.

## My Speech Sounds

It is very important that the student learns all about each sound in their current Sound Train.

Do this by:

1. Tapping on one Sound Buddy in a carriage window (it will highlight in blue).
2. Pressing Go. You'll hear a train whistle and you'll be directed to the My Sound Activities screen. Remember, it's important to learn all about the sound before doing activities, so next ...
3. Press the LEARN THE SOUND button.


## Learn the Sound

Learning is enhanced when it is multi-sensory. That's why there are five different ways to learn about each sound. Each is important! When all the Learn the Sound tasks have been completed, press the FORWARD button

View (and hear) a child saying the sound.
Learn the Hand Sound to accompany
the sound (see over for more details).


Watch an animated clip of a short Sound Story. The story explains how the sound is made and links the sound to the Sound Buddy.

FREE ONLINE RESOURCES
This app is used extensively by speech pathologists in speech therapy and early literacy programming. When used under the direction of a speech pathologist, it can replace many sessions of therapy and allow for home practice away from a clinic.
To do this effectively, the therapist should set clear instructions for carrying out activities at home. A Home Practice Sheet can be downloaded at the following websites:

## Pelican Talk Speech Therapy

## Resources

www.pelicantalk.com
Multimedia Speech Pathology www.mmsp.com.au

Love and Reilly Speech and Language Products
www.loveandreilly.com.au

Have the student say the sound. Press the microphone button. When it flashes red, say the sound. When the green arrow flashes, get ready to listen to the recording.

## Learn the Sound

## How the app helps children learn about sounds...

Young children don't think much about speech sounds. They don't need to! It only becomes important if they are producing sounds incorrectly and they need help to learn how to speak clearly. It also becomes important when they are preparing to learn to read and write. "Sounding-out" is a vital part of early literacy and is impossible if individual sounds cannot be perceived.
Speech Sound for Kids is designed to help kids "switch on" to sounds in a way that's fun and multi-faceted... the sound buddy picture and animated clip:

Each of the 22 sounds is represented by a friendly little character called a Sound Buddy which is taken from The Speech Sound Set © program from www.pelicantalk.com. The Sound Buddies are simply "sound linkage pictures" and are used to develop an interest in, and an awareness of specific speech sounds. (Later in school years, children learn to link sounds to letters, so the pictures are no longer necessary, but in early years of learning, they are invaluable). Sound linkage pictures have been used in speech therapy for years and are also used in many early literacy programs too. They create "a valuable way of representing phonemes in an accessible way" (Hesketh et al, 2007). 3 The advantage of our pictures (the Sound Buddies) is not only do they have a meaningful link to the sound (eg. Munching Mama enjoys her cookies and says "mmmmm"), but each of them has been illustrated so their mouths represent the mouthshape required to make the sound. This is unique from all other programs. In other words, our sound linkage pictures show the position of the "articulators" (mouth, teeth, tongue, lips).

Have a look at Munching Mama (above right); her lips are closed, and in the animated clip, you will see air flowing out of her nose! Knowing and practising the articulation (phonetic placement) for sounds, is also an important part of speech therapy. For some, it is used in the early stages of therapy only but for others (who may have a very small repetoire of sounds), it may be a major part. In all cases, the ultimate goal is producing the sounds correctly in words but to do this, an awareness of how to produce the individual speech sounds correctly is required.
Articulatory awareness activities (those that promote an understanding of the articulation required for each sound) have also been shown to be extremely beneficial in literacy programs for children with dyslexia (Joly-Pottuz, 2007).3
Note: Some articulatory positions, however, are very tricky to illustrate from the external view (such as Red Rex's articulation of $/ \mathrm{r} /$ ). In this case the student may rely more on the meaning cues of the picture, such as linking the $/ r /$ sound to the concept of a growling dog.
When learning about a sound, look at the PICTURE of the Sound Buddy and draw attention to the mouth and any other features you notice that might relate to the sound. Click on the picture to hear the sound and the name of the Sound Buddy. You can watch a little story (animated clip) by clicking on the BOOK icon. Again, comment on what the Sound Buddy is doing to make the sound, and any other features to do with the sound. (For example, Is the sound loud or soft? Does the sound pop out? Where does air flow from?)

## Learn the Sound (continued...)

## How the app helps children learn about sounds

## THE MOUTH CLIP:

The production of the sound is shown in a close-up video clip of the young girl saying the sound. To view this, click on the MOUTH icon. Often children will copy the sound when seeing this clip. When viewing this clip, comment on what the mouth is doing.

## HAND SOUND:

A clip of the Hand Sound is played when the HAND icon is pressed. A Hand Sound is simply a gestural cue that is beneficial for many students. Research suggests that a gestural cue can help in the learning, remembering and execution of verbal information. For some students, using the Hand Sound in the sound-learning phase will help them later access its correct production. It can also help them transfer the sound production to words. For some children with developmental dyspraxia (CAS), gestural cues are an essential part of therapy. In spelling tasks, Hand Sounds can help students identify the sound (and the associated letter) that they hear in a word. It's a way of self-cueing.
Hand Sounds can also be used by an adult to "show" the student where their tricky sound is required in a word. For example, in a word task, a child might say "sell" for "shell". The adult could say "Hmm, is that sell ?" as they model the Hand Sound for Sammy Snake. "Or is it shell?" as they do the Sharna Shoosh Hand Sound.
A Hand Sound can also be used as a handy and non-intrusive reminder for the child to correct an incorrect sound production. For example, if a child said "dap" for "gap", the adult might simply do the Hand Sound for Gulping Gary to prompt the child to self-correct.
Throughout the app, when saying a sound - individually and or in words - try and use the Hand Sound.
Ask a speech pathologist if you need more information on the use of these cues.


## SOUND:

To listen to the sound (without visuals), click on the EAR icon.

## MICROPHONE:

Click on the MICROPHONE icon and as soon as it flashes, say the sound (while doing the newly-learnt Hand Sound.)
The recording will automatically play back. Try it several times.

## Where to Next?

YES! The student has learnt about the chosen Sound Buddy and now has an understanding of the sound it represents. Where to next?

Complete the Sound Activities using this same sound by clicking on and returning to My Sound Activities. You will be automatically directed through the following activities... (see over for details)

## My Sound Activities

For the selected sound, you will be directed automatically to the LISTEN FOR THE SOUND activity. On completion of this, you will be directed to COPY THE SOUND. If at any stage, you wish to skip an activity, press the FORWARD ARROW on the top right of the screen.
If you wish to repeat an activity, press the UP ARROW on the top right of the screen and then select the activity's button.


## Sound Activities

## Listen for the Sound

This activity requires the student to listen for the target sound. A selection of sounds (from the Sound Train) is played and when the target sound is heard, the student must touch the Sound Buddy. For each correct response, a part of the picture becomes coloured. Four correct sounds must be identified to complete this activity.
This activity trains careful listening skills/ auditory discrimination. It helps children learn to discriminate carefully between sounds without any visual cues.
The sounds can be delivered each time the EAR icon is pressed OR at 2, 3 or 5 second intervals. For the latter, press the corresponding number down the bottom and then press the ear to begin. The PAUSE button can be pressed at any time to pause the timed presentation of the sound. Press the EAR icon to play the next sound. (Note: the number of correct and incorrect sounds identified are automatically calculated and sent to the stats
 page.)

SCORING: The number of sounds correctly and incorrectly identified is recorded automatically in MY STATISTICS for the student.

## Copy the Sound

This activity requires the student to copy saying the current Sound Buddy's sound. Press the picture and listen to the sound, then press the microphone and when it flashes, copy the sound. The sound is automatically replayed to the student. If it is correct, the adult can press the tick button and a star is highlighted. If incorrect, the cross button can be pressed and no star is highlighted. When fours stars are highlighted the activity is complete and clapping is heard. The activity can be repeated if desired.
SCORING: The number of sounds correctly and incorrectly copied (as judged by the ticks and crosses) is stored in MY STATISTICS for the student. If the adult wishes to write comments or make an audio recording (for later reference), press the PEN icon or SAVE icon after scoring. At any time, the student may press any of the buttons down the side if they need help producing the sound. These are cues previously used in the Learn the Sound section.

## Say the Sound

This activity is exactly the same as above except the student is not given a model of the sound to copy, nor are they offered any cues.

> At this stage ONLY the current Sound Buddy is being explored at a time. Later, all of sounds can be practised and contrasted in the COMBINED SOUND ACTIVITIES.

## Where to Next?

YES! The student has completed all the Sound Activities for this sound.

Where to next?

YES! The student has completed all the Sound Activities for all the sounds in the Sound Train. Where to next?

Continue on with this sound by pressing


Word Activities.
(See next two pages).
Return to My Sounds (the Sound Train) by clicking on and

Select another Sound Buddy to explore and press GO.
Return to My Sounds (the Sound Train) by clicking on and
Select
Select
and begin Combined Activities.
and begin Combined Activities.
(Jump three pages ahead).
(Jump three pages ahead).

## Word Activities

## There are five activities in this section that relate to the target sound in the first position of words. They are completed by pressing on one of the buttons below.



## Hear the Words

Press the EAR button to hear a list of words beginning with the target sound. The child is required only to listen to the words in a quiet environment. The student might be encouraged to close their eyes. This activity is based on what is known to speech pathologists (speech language therapists) as Auditory Bombardment or more lately Focused Auditory Stimulation. When children listen to targeted word lists, it is proposed that children develop strong "auditory images" of the sounds in words, thus allowing them to learn to monitor incorrect productions. 7 This activity can begin and end a therapy session or may be set for "homework".
Some children, after practising production tasks, may start to copy the words as the list is played. In the early stages of therapy, however, it should simply be a listening task. SCORING: The time spent on this activity is automatically recorded in MY STATISTICS.

## Match the Words

Students LOVE this activity. First select the number of tiles that you wish to include in the activity. Do this by clicking on one of the grids along the bottom. Some young children are better suited to a smaller number of tiles and the game can be repeated again and again. All words/pictures beneath the tiles begin with the target word.
The goal is to find two matching words. When the first picture is turned over, the start of a sentence or phrase is heard and when the matching pair is found, the target word is said and the two tiles disappear.
Depending on where the student is in their therapy, this may be used as an "auditory bombardment task" (see HEAR THE WORDS), or as a production activity where the student must say the word they are looking for before they turn over their second tile. Often children will start saying the target word spontaneously. (If they are not saying the start sound correctly
 you can prompt them using the Hand Sound).
An adult (or other child) might take turns. The adult can model saying the word they are searching for. This is good practice.
SCORING: The time spent on this activity is automatically recorded in MY STATISTICS.

## Word Activities (continued...)

## Listen for the Word

In order for students to begin saying a target sound correctly in words, they need to have awareness of the sound and when it occurs in words. The easiest position is to identify the sound at the start of words. In this activity, words beginning with the target sound (and also other sounds from the current Sound Train) appear in the large centre box. The target sound's Sound Buddy sits to the lower right as a reminder of the current sound. If a word is presented that begins with this Sound Buddy's sound, the centre picture should be touched. If correct, it will be sent to one of the six side boxes. If incorrect, the student is encouraged to "Keep trying" and more words/pictures are presented. Note: The words can be delivered each time the ear is pressed OR at 2, 3 or 5 second intervals. For the latter, press the corresponding number down the bottom and then press the ear to begin. SCORING: The number of correct and incorrect sounds identified are automatically calculated and
 sent to MY STATISTICS page.

## Copy the Words

This activity requires the student to copy the word that appears in the centre. Press the picture and listen to the word, then press the Microphone icon and when it flashes, copy the word. Wait a little and the word is automatically replayed to the student. If it is correct, the adult can press the tick button and a star is highlighted. If incorrect, the cross button can be pressed and no star is highlighted. Repeat the activity for this same word, by pressing the picture and then the Microphone icon.Two stars must be highlighted (after being judged correct by the adult) before pressing the arrow at the bottom right to proceed to the next word. 15 words are presented. At any time, the student may press any of the buttons down the side if they need help producing the sound. These are cues previously used in the Learn the Sound section.
SCORING: The number of words correctly and incorrectly copied (as judged by the ticks and crosses) is stored in MY STATISTICS for the student. If the adult wishes to write comments or make an audio recording (for later reference), press the PEN icon or SAVE icon after scoring.


## Say the Words

This activity is the same as above, only the student must say the word without a model. So students know which word is required, a spoken "trigger phrase" is provided for each word and the student must press record and finish the phrase/sentence.

## Combined Activities

The activities in this section incorporate ALL the sounds in the current Sound Train, and for some activities, contain ALL the sounds studied so far when using the app. It is a very important part of the app where learning thus far is combined. The activities include sound activities where single sounds are contrasted and then word activities. Both listening and production tasks are provided. Begin by selecting one of the round buttons.

Note: At this point, if you had four Sound Buddies in your Sound Train but only wanted to combine say, two of them in Combined Activities, then simply return to the Sound Train, press the COG icon, and choose only the required two Sound Buddies for the Sound Train. You will be prompted that this will start a new session, select OK, then you will be taken to the Sound Train where you can select Combined Activities.


## Who Said That Sound? (Combined Sound Activity)

This activity requires the student to distinguish between sounds when one is heard. It is an activity that targets auditory discrimination of sounds. A sound is heard and the corresponding Sound Buddy must be pressed. If correct, a small rectangle is filled. When all rectangles are filled, the task is complete.
Note: The sound can be delivered each time the ear is pressed OR at 2,3 or 5 second intervals. For the latter, press the corresponding number down the bottom and then press the ear to begin.

SCORING: The number of correct and incorrect sounds identified are automatically calculated and recorded under the current session's Combined Activities on the MY STATISTICS page.


## Match The Sound (Combined Sound Activity)

Students LOVE this activity. First select the number of tiles that you wish to include in the activity. Do this by selecting on of the grids along the bottom. Some young students are better suited to a smaller number of tiles, and the game can be repeated again and again.
In the full version, you also need to select from the three buttons at the bottom left. Choose the TRAIN icon if you wish to include only the Sound Buddies in your current train. Choose the SQUARE CAP icon to include all current and previously-studied sounds and select the ALL SOUNDS icon to include a selection from all 22 Sound Buddies.
The goal is to find two matching sounds. When the first picture is turned over, the Sound Buddy's name is heard and when the matching pair is found, the target sound is heard and those two tiles disappear.
Depending on where the student is in their therapy, this may be adapted to be a sound production activity where the student must say the sound they are looking for before they turn over their second tile.
SCORING: The time spent on this activity is automatically calculated and recorded under the current session's Combined Activities on the MY STATISTICS page.

## Copy the Sound (Combined Sound Activity)

This activity requires the student to copy saying the sound of the Sound Buddy that appears on the screen. Press the picture and listen to the sound, then press the MICROPHONE icon and when it flashes, copy the sound. The recorded sound is then automatically replayed to the student. If it is correct, the adult can press the tick button and a star is highlighted. If incorrect, the cross button can be pressed and no star is highlighted. When three stars are highlighted, positive feedback is given and the right arrow (down the bottom) can be pressed to copy the next Sound Buddy's sound.
As an alternative, the right arrow (down the bottom) can be pressed to go to the next sound after one recording. The next sound can be copied, recorded, played back, scored and then the forward or backward arrow can be pressed to copy another sound in the current set. The activity can continue this way until three stars are highlighted for each sound.
Practising the same sound over and over again (as described at the top of this page) is known as "blocked" practice and is thought by many researchers to lead to better performance, however performing the task as described in the last paragraph is known as "random" practice and is thought to lead to better retention and motor learning. 8 (This is particularly relevant for children with motor speech disorders such as developmental dyspraxia.)

 recording plays back, it will affect the timing for the next word.
SCORING: The number of sounds correctly and incorrectly copied (as judged by the ticks and crosses) is stored in MY STATISTICS for the student. If the adult wishes to write comments or make an audio recording (for later reference), press the PEN icon or the SAVE icon after scoring a particular sound.

## Say the Sound (Combined Sound Activity) <br> This activity is the same as above, however no model is provided.

## Did you know? Lots of single sound practice isn't something that is very useful for the production of speech.

The sound production tasks are simply an early step to using the sounds in words (for both speech and literacy). When the single sounds are mastered, children should move quickly on to using the sounds in words - and if this is too tricky - to using them in single consonant-vowel syllables. For children using the app to address their developmental dyspraxia (childhood apraxia of speech) or articulation disorder, this is particularly important. You can adapt all the SOUND ACTIVITIES to using the sound along with a vowel sound. Try adding "ah", then next time you practise add "ee", then "oo". For example, if you had Sammy Snake, Furry Fox and Sharna Shoosh in your Sound Train, you would say "sah" then "fah", then "sha", then "see", "fee", "she" and so on. Practice such as this is better for promoting clear speech production. (Also try "ow" "oh" "or" "ir" "igh" etc... )

## Who Said That Word? (Combined Word Activity)

This activity requires the student to distinguish between words beginning with different sounds. It is a phonemic awareness task known as first sound identification. A picture appears at the bottom right and the name of the picture is heard. The sound at the start of this word needs to be identified and the corresponding Sound Buddy pressed. If correct, a small rectangle is filled with the picture. When all rectangles are filled, the task is complete.
Note: The word can be delivered each time the ear is pressed OR at 2,3 or 5 second intervals. For the latter, press the corresponding number down the bottom and then press the ear to begin. SCORING: The number of initial sounds correctly and incorrectly identified is automatically stored in MY STATISTICS for the student.

## Match the Words (Combined Word Activity)

Press the MATCH ALL WORDS button to open this activity. First select the number of tiles that you wish to include in the activity. Do this by selecting one of the grids along the bottom. Some young students are better suited to a smaller number of tiles, and the game can be repeated again and again. A random mix of words using the current Sound Train's sounds are used. The goal is to find two matching words. When the first picture is turned over, a trigger phrase is heard and when the matching pair is found, the target word is heard and those two tiles disappear.
It is a good idea to instruct the student to say the word they are looking for before they turn over their second tile. Some children will start copying the phrases and sentences which is great speech practice!
SCORING: The time spent on this task is automatically stored in MY STATISTICS for the student.


## Copy the Words (Combined Word Activity)

Press the COPY ALL WORDS button to open this activity. This activity requires the student to copy saying the word that appears on the screen. 15 words beginning with each sound in the Sound Train will be presented randomly, so there will be lots of words to practise! Listen to the word, then press the MICROPHONE icon and when it flashes, copy the word. The recorded word is then automatically replayed to the student. If it is correct, the adult can press the tick button and a star is highlighted. If incorrect, the cross button can be pressed and no star is highlighted. When the star is highlighted, positive feedback is given and the right arrow (down the bottom) is pressed to copy the next word. IMPORTANT: You do not have to do the voice recordings. Instead you can simply copy each word and press the next arrow. Recordings are required, however, for the scoring function to be enabled. If using the record function, it is VERY IMPORTANT that you wait until the play button flashes and playback is heard before you press the NEXT arrow. If you proceed before the recording plays back, it will affect the timing for the next word.
SCORING: The number of words correctly and incorrectly copied (as judged by the ticks and crosses) is stored in MY STATISTICS for the student. If the adult wishes to write comments or make an audio recording (for later reference), press the PEN icon or SAVE icon after scoring

## Say the Words (Combined Word Activity)

This activity is the same as above, however no model is provided. Only a trigger phrase is heard. If you can't figure out the target word, it can be played if the ANSWER button is pressed.
IMPORTANT: You do not have to do the voice recordings. Instead you can simply say each word and press the next arrow. Recordings are required, however, for the scoring function to be enabled. If using the record function, it is VERY IMPORTANT that you wait until the play button flashes and playback is heard before you press the NEXT arrow. If you proceed before the recording plays back, it will affect the timing for the next word.


## Where to Next?

YES! The student has accurately completed all Combined Activities for the Sound Buddies in the Sound Train .

Where to next?


Click on the COG icon to choose more Sound Buddies to explore. When doing this, you will need to de-select your current Sound Buddies. Click them and the blue highlighting will be removed. Select your new sounds. You will be asked whether you wish to start a new session. Click OK.

Doing activities on this app is only part of the learning process.

It is vital that what is learnt using the app transfers to real life.

For this reason, see the page 22 and 23 for Transfer Ideas.

## What Else Does This App Offer?

## My Statistics

By clicking on the icon (above), an individual student's statistics and recordings can be viewed/listened to.
The results are arranged by session and the date recorded. If a new Sound Train set is chosen, a new session is started.
Within each session, each sound in the Sound Train is listed. This is a nice way to keep track of sounds that have been studied. There is also a heading "Combined Activities" for each Sound Train set.
You can view results by clicking on the Sound Buddy to view single sound activity results, or the Combined Activities heading to see results of combined activities.
Depending on the activity, statistics may include:
-the time spent on an activity

- the number of correct and incorrect attempts at a word or sound
-recordings of the student's current sound or word attempt (if you have clicked the SAVE icon after the student's production and scoring.)
-notes written by the adult/therapist (if you have clicked the PEN icon and written notes).
Any statistics can be emailed to the therapist if the therapist's email details have been entered in the Student Details section. Simply highlight the required statistics and then click the MAIL icon. You can send ALL the results or the results of a single session. Voice recordings cannot be sent via email.


> Saving an audio recording of a child's production of sounds or words BEFORE they have corrected them through therapy can be great encouragement. Re-visit the recording after the sound and word production has improved to show them how well they've done.

## Transfer Ideas

It's great when a child can complete the activities successfully using the app, but the ultimate goal is for them to transfer their skills to functional speaking and literacy tasks. A speech pathologist (SLP) will be able to best direct a user in ways to assist with transfer, but here are some general ideas...

## FOR SPEECH

For the purpose of providing examples, let us consider a child who has been working on Lovely Lara's sound (the target sound) and contrasting it with Yucky Yak's sound (the substituted sound).

- When the child is heard to produce the target sound correctly in words, it's great to praise them. (Be sure to acknowledge WHAT the child has said first before commenting on HOW they said it.) For example, the adult might say "By the way, your Lovely Lara sound was PERFECT!"
- Conversely, if the child says the sound incorrectly in words, the adult may choose to give them feedback. Of course, it's not a good idea to be interrupting the flow of conversation with negative feedback all the time. A subtle way to give feedback would be to do Lovely Lara's Hand Sound to remind the child to self-correct. Do this sparingly!
- The adult can draw a picture of Lovely Lara (or the pictures are available on CD-Rom from www.pelicantalk.com ) and underneath write/draw six common words containing the sound. These can be focus words that the child practises and tries to say correctly during the day. An agreement can be made with the child that the adult will be listening out for these words and will let them know if they are produced incorrectly. Preschool/school/grandparents can also be notified of these special words. For Lovely Lara, words such as the following may be chosen (but they should be individualised for the child): LIKE LUNCH LOVE LEAVE ROLLY (the child's dog's name) LUKE (the child's brother's name) HELLO
- When walking or or when in the car together, the adult might think of some words containing the target sound and have the child copy. Throw in some silly nonsense words to make it fun. In the initial stages, it may be a good idea to have the child do the HAND SOUND as they copy the words. "Lovely Lara says lick.....lamp... Ialaland.... lemonade... loopydoo..."
- There are many great ideas for transfer of skills in "Developmental Phonological Disorders: A Practical Guide for Families and Teachers" by Caroline Bowen. 9


## Transfer Ideas

## FOR LITERACY

## The app explicitly targets first sound identification. Incidentally, the app also exposes children to the letters that link to each sound ( hence helping children learn letter-sound and sound-letter correspondence.)

## Both these skills are critical in the early stages of learning to read and write.

For the purpose of providing examples, let us consider a child who has been learning about the sounds represented by Munching Mama and Nosey Nick.

## Phonemic Awareness:

- Choose a Sound Buddy and together, try and think of lots of words beginning with the sound. Use the Hand Sound when you say them. A useful prompt is "Make your mouth like Munching Mama's.... /m/.
- Get together a stack of pictures or items beginning with $/ \mathrm{m} /$ and $/ \mathrm{n} /$ and sort them according to sound.
- Play "Guess the word". Start with $/ \mathrm{m} / \mathrm{or} / \mathrm{h} /$ and then say an ending. Can the child join the onset and rime to create a word? For example, /m/..../ouse/.
Sound-Letter Correspondence:
- Write the letters that correspond to the sounds on cards. Have the child look at them and say "Which letter makes Munching Mama's sound?" Build up a set of these letter cards. (You can do both lower-case and capital. You might even wish to use different fonts).
- After exploring a sound, practise writing the letter together. Try and model the correct way to write each letter as habits form quickly.
- When looking at signs, you may point to a letter and say "Hey! That's Munching Mama's letter! Can you remember the sound it makes?"
- After completing words activities, SHOW the child how you write a word beginning with the sound by beginning with the corresponding letter. For example, "The word "mouse" starts with /m/. When I write "mouse", I start with the Munching Mama's letter" (write the letter). "Then I write the rest of the word. You'll learn how to do that later." The child can be encouraged to write the first letter and the adult finishes off the word.
THE SPEECH SOUND SET (School Versions) have many literacy tasks using the $\mathbf{2 2}$ sounds on the app. Also included are Sound Buddies for $\mathbf{2 0}$ vowel sounds. See www.pelicantalk.com On the FREE STUFF page are articles to download that address early literacy.


## References

1. Wager, R., Torgenson, J., Laughon, P., Simmons, K., \& Rashotte, C., (1993) Development of young readers' phonological processing abilities. Journal of Educational Psychology, 85, 83-103.
2. Heilman, K.M., Voeller, K., Alexander, A.W. (1996) Developmental Dyslexia: A Motor-Articulatory Feedback Hypothesis. Ann Neurology
3. Hesketh, A., Dima, E., \& Nelson,V. (2007) Teaching phoneme awareness to pre-literate children with speech disorder; A randomized controlled trial." International Journal of Language and Communication Disorders, 42 (3), 251-271
4. Cook, S.W., Mitchell, Z., \& Goldin-Meadow, S., (2008). Gesturing makes learning last. Cognition.
5. Joly-Pottuz, B., Mercier M., Leynaud, A., Habib, M. (2006) Combined auditory and articulatory training improves phonological deficit in children with dyslexia. Neuropsychological Rehabilitation.
6. Westwood., P. (2008) What Teachers Need to Know About Spelling.
7. Hodson, B.W., \& Paden , E.P. (1991) Targeting intelligible speech. A phonological approach to remediation, $2^{\text {nd }}$ Ed. Austin TX: Pro-Ed.
8. Schmidt RA, Lee TD, Motor Learning and Control , Champion, IL: Human Kinetics, (2005)
9. Bowen, C. (1998) Developmental Phonological Disorders: A practical guide for families and teachers. ACER Press.


## Credits \& Links

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Multimedia
Speech
Pathology

- Richard Homburg, Lead Software Developer
- All illustrations by Lucia Smith www.pelicantalk.com
- Sound effects sourced from Free SFX www.freesfx.co.uk


PGGICAK GAGK SPEECH THERAPY RESOURCES

## Another great sound and word practice app (appropriate for adults also):

Speech Sounds on Cue, Multimedia Speech Pathology www.mmsp.com.au

This app is based on the "Sound Buddies" of The Speech Sound Set. Several versions are available at www.pelicantalk.com

