



## Phonology II

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*Who Am I?, Dozin' Off, Yumpin' Yimminy!, Bouncin' Bubbles, Gone Fishin', Clownin' Around, Bear-ly Lit, Match Ups!*

LocuTour's Phonology I CD provides therapists with six games designed to elicit large numbers of productions from their clients with phonological disorders. From auditory bombardment of minimal pairs, through extensive practice at the single word and phrase levels, to spontaneous production of target patterns in the *What's Wrong?* game, the CD presents clients with a comprehensive phonological program. Phonology II, with its animated games, is just plain fun! Clients pop bubbles, help a bulldozer do its work, fill a pond with lily pads for a frog, catch fish, grab flying objects as two clowns juggle them, and help a bear locate his honey jars. And all the while they practice their target phonological patterns.

Guidelines for the choice of target patterns and words are outlined in the book, *Targeting Intelligible Speech: A Phonological Approach to Remediation* by Barbara Williams Hodson and Elaine Pagel Paden (College Hill Press: San Diego, 1983). These two authors drew on research and their combined extensive clinical experience to develop an effective remediation program for highly unintelligible children. The authors of LocuTour's phonology CDs, Marna Scarry-Larkin and Elizabeth Price, were student clinicians under Dr. Hodson at San Diego State University during the development of these concepts. We gratefully acknowledge the contribution of Hodson and Paden to our work with children.

Hodson and Paden's program is based on the idea of introducing target *patterns* rather than target phonemes. One pattern is targeted for a limited time, two to four weeks, then the next pattern is targeted. Hodson and Paden called this method of introducing patterns a *cycle*. Patterns include: syllable reduction, cluster reduction, pre- and postvocalic singleton omission, stridency deletion, velar deviation, liquid deviation, nasal deviation, and glide deviation. Within these patterns, specific phonemes are targeted. On the *Phonology II* CD the targeted patterns are labeled: *Final Consonants; Initial Consonants; Initial /S/ Clusters; Initial /L/ and /R/ Clusters; and Two-, Three-, and Four-Syllable Words*. When clients have mastered the phonological processes targeted on the Phonology I and Phonology II CDs, they will enjoy working on a traditional articulation program using LocuTour's *Articulation* CD programs.

The selection process for the words on *Phonology I and Phonology II* was based on information from Hodson's and Paden's book and our own work with children. Hodson and Paden advocate careful attention to phonetic environment when choosing

target words for therapy. Research and experience have shown that a sound's position in a word and the phonemes that come before and after it can either help or hinder the production of the target. For instance, if a client is fronting velar sounds (t/k), words with /t/ will interfere with his or her production of /k/. With that in mind, we did not include words such as cat or kite in the /k/ target lists.

In addition to the activities on the CD, it is often helpful to use tactile cues to help your clients achieve correct production of a target sound. Many clinicians already use these cues which can include: stroking the arm toward the hand to "illustrate" the /s/; tapping the hand to "illustrate" the stopped sound of /p/, /t/, or /k/; tapping lightly on the neck for the feel of the velar; holding the client's hand to the clinician's mouth during the clinician's production of /p/ to allow the client to feel the air; and holding the client upside down so that the tongue drops to the back of the mouth, as in a velar. We encourage clinicians to sit beside their clients as they play the games so that the clinicians can offer tactile help, feedback, and reinforcement to their clients and make use of the scoring options offered on this CD program. We have found that the use of headphones enhances the effectiveness of the CD because all of the sounds can be heard clearly. Without earphones it is sometimes difficult to hear the final /s/ and /p/ sounds. In addition, headphones are essential for effective auditory bombardment. However, if your computer cannot play sounds in 16 bit mode, the words will sound "scratchy" with headphones.



*Smooth long sound of "s"*



*Abrupt "stopping" sounds of "p", "t", "k"*



*Neck tap for velar sounds "k" and "g"*



*"p" on child's hand to feel the air come popping out*

*Upside down for getting placement for "k"*

*Pretzel scratch for "t", "d", "l", "n", "ch", "j" placement*

*Scratch tongue and behind teeth on alveolar ridge - put the two scratched places together.*



In our clinical experience we have found that a client's quick little hand on the mouse can end a computer session abruptly when the client clicks on the *Finished* button. In order to prevent such an unexpected change of direction, we have programmed in an option to lock the *Finished* button. This option can be accessed on the main menu screen only, that is, the screen that lists all of the game names. To activate the lock finish feature, click on *Options* then *Lock Finish Button*. Choose the *Locked* option. When this feature is activated, the client has to "play" all of the words in the chosen target pattern before he can do anything else short of quitting the entire program. All games will stay locked until the clinician goes back to the main menu screen and unlocks the feature. This is done by clicking on *Options* and *Lock Finish Button*, then choosing the *Unlocked* option.



## Who Am I?

*Final Consonants, Initial Consonants, Initial S Clusters, Initial L and R Clusters, One-, Two-, Three-, and Four-Syllable Words*

**Objective** The client will learn the names of all of the pictures included on *Phonology II* and will practice target patterns in a continuous naming format.

**Monitoring and Self-Monitoring:**

The client or clinician determines that the target sound has been produced correctly or incorrectly. The clinician can also note whether the response was produced spontaneously or imitatively (see **Scoring**). Use the “Record and Play” features to record and listen to the client’s production of the target. The clinician should alternate between the model and the client’s recorded production and stress the importance of the concept that, “Contrast aids perception.” Listen for the similarities and differences between the two productions. Have the clients monitor their own speech and determine accuracy.

**Transfer activities** can include writing on the homework sheets and recording new phrases and sentences for the target word. These recordings cannot be saved but can be replayed at the time of recording.

**Carryover** can be practiced by recording “spontaneous conversations” that have the target word used somewhere in the conversation. The games themselves can be used as conversation starters. The record feature will allow several minutes of recording if there is room on your hard drive to save the file temporarily. Playing *What’s Wrong?* on the Phonology I CD offers many opportunities to practice carryover of target sounds into spontaneous speech.

**How to Play** The clinician chooses, or assists the client in choosing, the target pattern and sound from the game screen. The clinician then selects one of two levels of play--the *I’m a...* level or the *Who am I?* level. The selected button is highlighted in orange. In the first, or *I’m a...* level, the stimulus pictures play continuously at a speed chosen from the *Options* screen. The computer displays a picture, names it, and moves to the next picture. The clinician can lower the volume from the *Options* screen if the goal is to have the client name the pictures spontaneously (continuous naming format). If the clinician chooses the *Who am I?* level, the computer displays a picture and asks, “Who am I?”. There is a pause of predetermined length chosen from the *Options* screen, then the computer names the picture and moves to the next one.

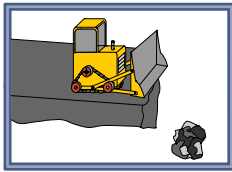
**Response Options** The clinician can choose whether the stimulus presentation is in the form of the whole word (*W button*) or the word with the target sound separated (*S button*). Record and play the client’s productions with the *VCR-like buttons* underneath the stimulus picture. Show or hide the printed label of the picture by clicking on the *sunflower* symbol. Stop the continuous play of the stimulus pictures by clicking anywhere on the picture screen. Resume play by clicking on the *right-facing arrow* in the bottom right hand corner of the game screen. View the options by clicking on *Options*, change games at any time by clicking on *Game*, start each game using the *Start* button, click on *Say Again* to hear the stimulus word repeated, hit *Print* to print a homework page, and click on *Finished* to get to the Results pages. If the clinician decides to change targets in the middle of the stimulus presentations, the computer shows a Quick Results page for the targets completed, then the clinician clicks on *Start* to begin the next group of target sounds.

**Options** *Help, Volume, Wait Time Between Screens, Pause After Prompt, Stimulus Presentation Order*

**Scoring** The clinician can keep track of the spontaneity and accuracy of the client’s productions by using four keys on the keyboard. To indicate a spontaneous correct response, type Z. For a spontaneous incorrect response type A. An imitative correct production is indicated by typing C, and an imitative incorrect production by typing I or E. These keys were chosen because they are easy to reach with little movement of the hand and are easy to use discretely. The computer will keep track of the clinician’s scoring and will summarize it on the Quick Results page.



- Target Patterns** Words can be selected from five target patterns: final consonants, initial consonants, initial S clusters, initial L and R clusters, and two-, three-, and four-syllable words. The final consonant target pattern includes: final /p/, /t/, /k/, /ps/, /ts/, /ks/, /m/, /n/, and /l/. Initial consonant choices are /k/, /l/, and /r/. Initial S clusters include: /sp/, /st/, /sm/, /sn/, /sk/, /sl/, /sw/, and /skw/. Initial L and R clusters include the patterns: /kl/, /gl/, /fl/, /bl/, /pl/, /kr/, /gr/, /tr/, /dr/, and /fr/. The *mix* button presents random target sounds within a target pattern.
- Screens** Colorful drawings for each target word. There are ten screens for each final and initial consonant target. Screen numbers for initial S clusters vary from four to nine. The L and R cluster targets have between four and eight screens. There are fifteen screens each for the two-, three-, and four-syllable words.
- Game Results** Quick Results: Target pattern, Game level, Word, Spontaneous Correct and Incorrect, Imitative Correct and Incorrect.  
Final Results: Number of Words Viewed, Spontaneous Correct/Incorrect, Imitative Correct/Incorrect



## Dozin' Off

*Final Consonants, Initial Consonants, Initial S Clusters,  
Initial L and R Clusters, Two-, Three-, and Four Syllable Words*

**Objective** The client will listen to all of the target sounds (auditory bombardment). The client will record and produce the target sound in words (expressive).

**Monitoring and Self-Monitoring:**

The client or clinician determines that the target sound has been produced correctly or incorrectly. The clinician can also note whether the response was produced spontaneously or imitatively (see **Scoring**). Use the "Record and Play" features to record and listen to the client's production of the target. The clinician should alternate between the model and the client's recorded production and stress the importance of the concept that, "Contrast aids perception." Listen for the similarities and differences between the two productions. Have the clients monitor their own speech and determine accuracy.

**Transfer activities** can include writing on the homework sheets and recording new phrases and sentences for the target word. These recordings cannot be saved but can be replayed at the time of recording.

**Carryover** can be practiced by recording "spontaneous conversations" that have the target word used somewhere in the conversation. The games themselves can be used as conversation starters. The record feature will allow several minutes of recording if there is room on your hard drive to save the file temporarily. Playing *What's Wrong?* on the Phonology I CD offers many opportunities to practice carryover of target sounds into spontaneous speech.

**How to Play** The clinician chooses, or assists the client in choosing, the target pattern and sound from the game screen. The clinician chooses the options desired for the game (see **Options** below), then clicks on *Start* to begin the game. When a boulder falls from the mountain, the client clicks on it and the 'dozer pushes it off the cliff. When it lands, it turns into a target picture. The client names the picture then clicks on it. The computer names the picture, then the item shrinks and moves off to the side. The client continues to click on boulders until he has named all of the target words. At that point, a bulldozer moves the boulders across the screen and leaves the target pictures on the screen in case the clinician wants the client to name them again. If the client clicks on a picture in the line, it will enlarge. Another click and the computer will name it as it shrinks. A click on the *right-facing arrow* in the bottom right hand corner of the game screen takes you to the Quick Results page. A click on *Finished* and *View Results* gets you to the final Results page.

**Response Options** Choose whether the stimulus presentation is in the form of the whole word (*W button*) or the word with the target sound (or syllables) separated (*S button*). Record and play the client's responses with the *VCR-like buttons* underneath the stimulus picture. Show or hide the printed label of the picture by clicking on the *sunflower* symbol. Click on the *left-curving arrow* to repeat the game. View the options by clicking on *Options*, change games at any time by clicking on *Game*, and start each game using the *Start* button. If the client or clinician clicks on *Show Answer* the bulldozer pushes the rock off and enlarges the picture. Another click on *Show Answer* and the computer shrinks the picture, names it, and lines it up. Hit *Print* to print a homework page, and click on *Finished* to get to the Results pages.

**Options** *Help, Volume, Rewards, Stimulus Presentation Order*

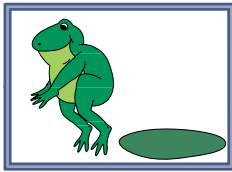


**Scoring** The clinician can keep track of the spontaneity and accuracy of the client's productions by using four keys on the keyboard. To indicate a spontaneous correct response, type *Z*. For a spontaneous incorrect response type *A*. An imitative correct production is indicated by typing *C*, and an imitative incorrect production by typing *I* or *E*. These keys were chosen because they are easy to reach with little movement of the hand and are easy to use discretely. The computer will keep track of the clinician's scoring and will summarize it on the Quick Results page.

**Target Patterns** Words can be selected from five target patterns: final consonants, initial consonants, initial S clusters, initial L and R clusters, and two-, three-, and four-syllable words. The final consonant target pattern includes: final /p/, /t/, /k/, /ps/, /ts/, /ks/, /m/, /n/, and /l/. Initial consonant choices are /k/, /l/, and /r/. Initial S clusters include: /sp/, /st/, /sm/, /sn/, /sk/, /sl/, /sw/, and /skw/. Initial L and R clusters include the patterns: /kl/, /gl/, /fl/, /bl/, /pl/, /kr/, /gr/, /tr/, /dr/, and /fr/. The *mix* button presents random target sounds within a target pattern.

**Stimulus Pictures** Colorful drawings for each target word. There are ten pictures for each final and initial consonant target. Picture numbers for initial S clusters vary from four to nine. The L and R cluster targets have between four and eight pictures. There are ten pictures each for the two-, three-, and four-syllable words.

**Game Results** Quick Results: Target pattern, Word, Spontaneous Correct and Incorrect, Imitative Correct and Incorrect  
Final Results: Target pattern, Spontaneous Correct and Incorrect, Imitative Correct and Incorrect, #Words viewed



## Yumpin' Yimminy!

*Final Consonants, Initial Consonants, Initial S Clusters,  
Initial L and R Clusters, Two-, Three-, and Four-Syllable Words*

**Objective** The client will listen to all of the target sounds (auditory bombardment). The client will record and produce the target sound in words (expressive).

**Monitoring and Self-Monitoring:**

The client or clinician determines that the target sound has been produced correctly or incorrectly. The clinician can also note whether the response was produced spontaneously or imitatively (see **Scoring**). Use the "Record and Play" features to record and listen to the client's production of the target. The clinician should alternate between the model and the client's recorded production and stress the importance of the concept that, "Contrast aids perception." Listen for the similarities and differences between the two productions. Have the clients monitor their own speech and determine accuracy.

**Transfer activities** can include writing on the homework sheets and recording new phrases and sentences for the target word. These recordings cannot be saved but can be replayed at the time of recording.

**Carryover** can be practiced by recording "spontaneous conversations" that have the target word used somewhere in the conversation. The games themselves can be used as conversation starters. The record feature will allow several minutes of recording if there is room on your hard drive to save the file temporarily. Playing *What's Wrong?* on the Phonology I CD offers many opportunities to practice carryover of target sounds into spontaneous speech.

**How to Play** The clinician chooses, or assists the client in choosing, the target pattern and sound from the game screen. The clinician chooses the options desired for the game (see **Options** below), then clicks on *Start* to begin the game. Pictures of target words float in a pond. When the client clicks on a picture, it enlarges. The client names the picture and clicks on it again. It shrinks and turns into a lily pad as the computer names it. The frog jumps onto the pad and the pictures line up underneath the pond. When the client has "found" all of the lily pads, the frog hops away and the pictures remain in case the clinician would like the client to name them again. If the client clicks on a picture in the line, it will enlarge. Another click and the computer will name it as it shrinks. A click on the right-facing arrow in the bottom right hand corner of the game screen takes you to the Quick Results page. A click on *Finished* and *View Results* gets you to the final Results page.

**Response Options** Choose whether the stimulus presentation is in the form of the whole word (*W button*) or the word with the target sound (or syllables) separated (*S button*). Record and play the client's responses with the *VCR-like buttons* underneath the stimulus picture. Show or hide the printed label of the picture by clicking on the *sunflower* symbol. Click on the *left-curving arrow* to repeat the game. View the options by clicking on *Options*, change games at any time by clicking on *Game*, and start each game using the *Start* button. If the client or clinician clicks on *Show Answer*, the computer chooses a picture to enlarge. Another click on *Show Answer* and the computer shrinks the picture, names it, and turns it into a lily pad. Hit *Print* to print a homework page, and click on *Finished* to get to the Results pages.

**Options** *Help, Volume, Rewards, Stimulus Presentation Order*

**Scoring** The clinician can keep track of the spontaneity and accuracy of the client's productions by using four keys on the keyboard. To indicate a spontaneous correct response, type *Z*. For a spontaneous incorrect response type *A*. An imitative correct production is indicated by typing *C*, and an imitative incorrect production by typing *I* or *E*. These keys were chosen because they are easy to reach with little move-



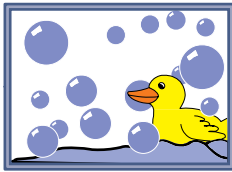


ment of the hand and are easy to use discretely. The computer will keep track of the clinician's scoring and will summarize it on the Quick Results page.

**Target Patterns** Words can be selected from five target patterns: final consonants, initial consonants, initial S clusters, initial L and R clusters, and two-, three-, and four-syllable words. The final consonant target pattern includes: final /p/, /t/, /k/, /ps/, /ts/, /ks/, /m/, /n/, and /ŋ/. Initial consonant choices are /k/, /l/, and /r/. Initial S clusters include: /sp/, /st/, /sm/, /sn/, /sk/, /sl/, /sw/, and /skw/. Initial L and R clusters include the patterns: /kl/, /gl/, /fl/, /bl/, /pl/, /kr/, /gr/, /tr/, /dr/, and /fr/. The *mix* button presents random target sounds within a target pattern.

**Stimulus Pictures** Colorful drawings for each target word. There are ten pictures for each final and initial consonant target. Picture numbers for initial S clusters vary from four to nine. The L and R cluster targets have between four and eight pictures. There are ten pictures each for the two-, three-, and four-syllable words.

**Game Results** Quick Results: Target pattern, Word, Spontaneous Correct and Incorrect, Imitative Correct and Incorrect  
Final Results: Target pattern, Spontaneous Correct and Incorrect, Imitative Correct and Incorrect, #Words viewed



## Bouncin' Bubbles

*Final Consonants, Initial Consonants, Initial S Clusters,  
Initial L and R Clusters, Two-, Three-, and Four-Syllable Words*

**Objective** The client will listen to all of the target sounds (auditory bombardment). The client will record and produce the target sound in words (expressive).

**Monitoring and Self-Monitoring:**

The client or clinician determines that the target sound has been produced correctly or incorrectly. The clinician can also note whether the response was produced spontaneously or imitatively (see **Scoring**). Use the "Record and Play" features to record and listen to the client's production of the target. The clinician should alternate between the model and the client's recorded production and stress the importance of the concept that, "Contrast aids perception." Listen for the similarities and differences between the two productions. Have the clients monitor their own speech and determine accuracy.

**Transfer activities** can include writing on the homework sheets and recording new phrases and sentences for the target word. These recordings cannot be saved but can be replayed at the time of recording.

**Carryover** can be practiced by recording "spontaneous conversations" that have the target word used somewhere in the conversation. The games themselves can be used as conversation starters. The record feature will allow several minutes of recording if there is room on your hard drive to save the file temporarily. Playing *What's Wrong?* on the Phonology I CD offers many opportunities to practice carryover of target sounds into spontaneous speech.

**How to Play** The clinician chooses, or assists the client in choosing, the target pattern and sound from the game screen. The clinician chooses the options desired for the game (see **Options** below), then clicks on *Start* to begin the game. The client moves the butterfly cursor to a bubble and clicks. The bubble turns into a target picture for the client to name. The client clicks again on the picture, the computer names the picture as the picture shrinks then drops into the tub with a splash. When all of the bubbles have been popped, the butterfly flies away, leaving the pictures lined up in the green bar underneath the tub. The clinician can then ask the client to name them again. If the client clicks on a picture in the line, it will enlarge. Another click and the computer will name it as it shrinks. A click on the *right-facing arrow* in the bottom right hand corner of the game screen takes you to the Quick Results page. A click on *Finished* and *View Results* gets you to the final Results page.

**Response Options** Choose whether the stimulus presentation is in the form of the whole word (*W button*) or the word with the target sound (or syllables) separated (*S button*). Record and play the client's responses with the *VCR-like buttons* underneath the stimulus picture. Show or hide the printed label of the picture by clicking on the *sunflower* symbol. Click on the *left-curving arrow* to repeat the game. View the options by clicking on *Options*, change games at any time by clicking on *Game*, and start each game using the *Start* button. If the client or clinician clicks on *Show Answer*, the computer chooses a picture to enlarge. Another click on *Show Answer* and the computer shrinks the picture, names it, and drops it into the tub. Hit *Print* to print a homework page, and click on *Finished* to get to the Results pages.



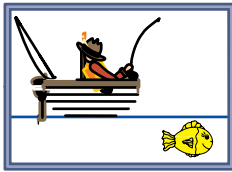
**Options**    *Help, Volume, Rewards, Stimulus Presentation Order*

**Scoring**    The clinician can keep track of the spontaneity and accuracy of the client's productions by using four keys on the keyboard. To indicate a spontaneous correct response, type Z. For a spontaneous incorrect response type A. An imitative correct production is indicated by typing C, and an imitative incorrect production by typing I or E. These keys were chosen because they are easy to reach with little movement of the hand and are easy to use discretely. The computer will keep track of the clinician's scoring and will summarize it on the Quick Results page.

**Target Patterns**    Words can be selected from five target patterns: final consonants, initial consonants, initial S clusters, initial L and R clusters, and two-, three-, and four-syllable words. The final consonant target pattern includes: final /p/, /t/, /k/, /ps/, /ts/, /ks/, /m/, /n/, and /l/. Initial consonant choices are /k/, /l/, and /r/. Initial S clusters include: /sp/, /st/, /sm/, /sn/, /sk/, /sl/, /sw/, and /skw/. Initial L and R clusters include the patterns: /kl/, /gl/, /fl/, /bl/, /pl/, /kr/, /gr/, /tr/, /dr/, and /fr/. The *mix* button presents random target sounds within a target pattern.

**Stimulus Pictures**    Colorful drawings for each target word. There are ten pictures for each final and initial consonant target. Picture numbers for initial S clusters vary from four to nine. The L and R cluster targets have between four and eight pictures. There are ten pictures each for the two-, three-, and four-syllable words.

**Game Results**    Quick Results: Target pattern, Word, Spontaneous Correct and Incorrect, Imitative Correct and Incorrect  
Final Results: Target pattern, Spontaneous Correct and Incorrect, Imitative Correct and Incorrect, #Words viewed



## Gone Fishin'

*Final Consonants, Initial Consonants, Initial S Clusters,  
Initial L and R Clusters, Two-, Three-, and Four-Syllable Words*

**Objective** The client will listen to all of the target sounds (auditory bombardment). The client will record and produce the target sound in words (expressive).

**Monitoring and Self-Monitoring:**

The client or clinician determines that the target sound has been produced correctly or incorrectly. The clinician can also note whether the response was produced spontaneously or imitatively (see **Scoring**). Use the "Record and Play" features to record and listen to the client's production of the target. The clinician should alternate between the model and the client's recorded production and stress the importance of the concept that, "Contrast aids perception." Listen for the similarities and differences between the two productions. Have the clients monitor their own speech and determine accuracy.

**Transfer activities** can include writing on the homework sheets and recording new phrases and sentences for the target word. These recordings cannot be saved but can be replayed at the time of recording.

**Carryover** can be practiced by recording "spontaneous conversations" that have the target word used somewhere in the conversation. The games themselves can be used as conversation starters. The record feature will allow several minutes of recording if there is room on your hard drive to save the file temporarily. Playing *What's Wrong?* on the Phonology I CD offers many opportunities to practice carryover of target sounds into spontaneous speech.

**How to Play** The clinician chooses, or assists the client in choosing, the target pattern and sound from the game screen. The clinician chooses the options desired for the game (see **Options** below), then clicks on *Start* to begin the game. Using the mouse, the client clicks on the hook and worm and drags the hook to a fish. She clicks on the fish and it turns into a target picture. She names the picture and clicks on it. The fish is reeled up on the line, then escapes, jumps, and swims away. The target picture appears at the bottom of the lake. If the client finds it hard to click and drag on the hook, she can simply click on a fish and it will turn into a target picture. When all the fish have been caught and released, the person in the boat drives into the sunset, the sun disappears, and the sky turns to night. All of the pictures are still available at the bottom of the lake so that the clinician can ask the client to name them again. If the client clicks on a picture in the line, it will enlarge. Another click and the computer will name it as it shrinks. A click on the *right-facing arrow* in the bottom right hand corner of the game screen takes you to the Quick Results page. A click on *Finished* and *View Results* gets you to the final Results page.

**Response Options** Choose whether the stimulus presentation is in the form of the whole word (*W button*) or the word with the target sound (or syllables) separated (*S button*). Record and play the client's responses with the *VCR-like buttons* underneath the stimulus picture. Show or hide the printed label of the picture by clicking on the *sunflower* symbol. Click on the *left-curving arrow* to repeat the game. View the options by clicking on *Options*, change games at any time by clicking on *Game*, and start each game using the *Start* button. If the client or clinician clicks on *Show Answer*, the computer chooses a picture to enlarge. Another click on *Show Answer* and the computer shrinks the picture, names it, and the fish is reeled in. Hit *Print* to print a homework page, and click on *Finished* to get to the Results pages.

**Options** *Help, Volume, Rewards, Stimulus Presentation Order*

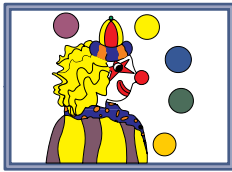
**Scoring** The clinician can keep track of the spontaneity and accuracy of the client's productions by using four keys on the keyboard. To indicate a spontaneous correct response, type Z. For a spontaneous incorrect response type A. An imitative correct production is indicated by typing C, and an imitative incorrect production by typing I or E. These keys were chosen because they are easy to reach with little movement of the hand and are easy to use discretely. The computer will keep track of the clinician's scoring and will summarize it on the Quick Results page.



**Target Patterns** Words can be selected from five target patterns: final consonants, initial consonants, initial S clusters, initial L and R clusters, and two-, three-, and four-syllable words. The final consonant target pattern includes: final /p/, /t/, /k/, /ps/, /ts/, /ks/, /m/, /n/, and /l/. Initial consonant choices are /k/, /l/, and /r/. Initial S clusters include: /sp/, /st/, /sm/, /sn/, /sk/, /sl/, /sw/, and /skw/. Initial L and R clusters include the patterns: /kl/, /gl/, /fl/, /bl/, /pl/, /kr/, /gr/, /tr/, /dr/, and /fr/. The *mix* button presents random target sounds within a target pattern.

**Stimulus Pictures** Colorful drawings for each target word. There are ten pictures for each final and initial consonant target. Picture numbers for initial S clusters vary from four to nine. The L and R cluster targets have between four and eight pictures. There are ten pictures each for the two-, three-, and four-syllable words.

**Game Results** Quick Results: Target pattern, Word, Spontaneous Correct and Incorrect, Imitative Correct and Incorrect  
Final Results: Target pattern, Spontaneous Correct and Incorrect, Imitative Correct and Incorrect, #Words viewed



## Clownin' Around

*Final Consonants, Initial Consonants, Initial S Clusters,  
Initial L and R Clusters, Two-, Three-, and Four-Syllable Words*

**Objective** The client will listen to all of the target sounds (auditory bombardment). The client will record and produce the target sound in words (expressive).

**Monitoring and Self-Monitoring:**

The client or clinician determines that the target sound has been produced correctly or incorrectly. The clinician can also note whether the response was produced spontaneously or imitatively (see **Scoring**). Use the "Record and Play" features to record and listen to the client's production of the target. The clinician should alternate between the model and the client's recorded production and stress the importance of the concept that, "Contrast aids perception." Listen for the similarities and differences between the two productions. Have the clients monitor their own speech and determine accuracy.

**Transfer activities** can include writing on the homework sheets and recording new phrases and sentences for the target word. These recordings cannot be saved but can be replayed at the time of recording.

**Carryover** can be practiced by recording "spontaneous conversations" that have the target word used somewhere in the conversation. The games themselves can be used as conversation starters. The record feature will allow several minutes of recording if there is room on your hard drive to save the file temporarily. Playing *What's Wrong?* on the Phonology I CD offers many opportunities to practice carryover of target sounds into spontaneous speech.

**How to Play** The clinician chooses, or assists the client in choosing, the target pattern and sound from the game screen. The clinician chooses the options desired for the game (see **Options** below), then clicks on *Start* to begin the game. As the two clowns juggle target pictures, the client chooses a picture and clicks on it. It enlarges and the client names the picture. He clicks on the picture again, the computer names and shrinks the picture, then it turns into a colored ball. When all of the pictures have been named and turned into balls, the clowns catch the balls and walk out of the ring. The pictures are left in the ring in case the clinician wants to ask the client to name them again. If the client clicks on a picture in the line, it will enlarge. Another click and the computer will name it as it shrinks. A click on the *right-facing arrow* in the bottom right hand corner of the game screen takes you to the Quick Results page. A click on *Finished* and *View Results* gets you to the final Results page.

**Response Options** Choose whether the stimulus presentation is in the form of the whole word (*W button*) or the word with the target sound (or syllables) separated (*S button*). Record and play the client's responses with the *VCR-like buttons* underneath the stimulus picture. Show or hide the printed label of the picture by clicking on the *sunflower* symbol. Click on the *left-curving arrow* to repeat the game. View the options by clicking on *Options*, change games at any time by clicking on *Game*, and start each game using the *Start* button. If the client or clinician clicks on *Show Answer*, the computer chooses a picture to enlarge. Another click on *Show Answer* and the computer shrinks the picture, names it, and the fish is reeled in. Hit *Print* to print a homework page, and click on *Finished* to get to the Results pages.

**Options** *Help, Volume, Rewards, Stimulus Presentation Order*

**Scoring** The clinician can keep track of the spontaneity and accuracy of the client's productions by using four keys on the keyboard. To indicate a spontaneous correct response, type *Z*. For a spontaneous incorrect response type *A*. An imitative correct production is indicated by typing *C*, and an imitative incorrect production by typing *I* or *E*. These keys were chosen because they are easy to reach with little movement of the hand and are easy to use discretely. The computer will keep track of the clinician's scoring and will summarize it on the Quick Results page.



**Target Patterns** Words can be selected from five target patterns: final consonants, initial consonants, initial S clusters, initial L and R clusters, and two-, three-, and four-syllable words. The final consonant target pattern includes: final /p/, /t/, /k/, /ps/, /ts/, /ks/, /m/, /n/, and /l/. Initial consonant choices are /k/, /l/, and /r/. Initial S clusters include: /sp/, /st/, /sm/, /sn/, /sk/, /sl/, /sw/, and /skw/. Initial L and R clusters include the patterns: /kl/, /gl/, /fl/, /bl/, /pl/, /kr/, /gr/, /tr/, /dr/, and /fr/. The *mix* button presents random target sounds within a target pattern.

**Stimulus Pictures** Colorful drawings for each target word. There are ten pictures for each final and initial consonant target. Picture numbers for initial S clusters vary from four to nine. The L and R cluster targets have between four and eight pictures. There are ten pictures each for the two-, three-, and four-syllable words.

**Game Results** Quick Results: Target pattern, Word, Spontaneous Correct and Incorrect, Imitative Correct and Incorrect  
Final Results: Target pattern, Spontaneous Correct and Incorrect, Imitative Correct and Incorrect, #Words viewed



## Bear-ly Lit

*Final Consonants, Initial Consonants, Initial S Clusters,  
Initial L and R Clusters, Two-, Three-, and Four-Syllable Words*

**Objective** The client will listen to all of the target sounds (auditory bombardment). The client will record and produce the target sound in words (expressive).

### **Monitoring and Self-Monitoring:**

The client or clinician determines that the target sound has been produced correctly or incorrectly. The clinician can also note whether the response was produced spontaneously or imitatively (see **Scoring**). Use the “Record and Play” features to record and listen to the client’s production of the target. The clinician should alternate between the model and the client’s recorded production and stress the importance of the concept that, “Contrast aids perception.” Listen for the similarities and differences between the two productions. Have the clients monitor their own speech and determine accuracy.

**Transfer activities** can include writing on the homework sheets and recording new phrases and sentences for the target word. These recordings cannot be saved but can be replayed at the time of recording.

**Carryover** can be practiced by recording “spontaneous conversations” that have the target word used somewhere in the conversation. The games themselves can be used as conversation starters. The record feature will allow several minutes of recording if there is room on your hard drive to save the file temporarily. Playing *What’s Wrong?* on the Phonology I CD offers many opportunities to practice carryover of target sounds into spontaneous speech.

**How to Play** The clinician chooses, or assists the client in choosing, the target pattern and sound from the game screen. The clinician chooses the options desired for the game (see **Options** below), then clicks on *Start* to begin the game. Using the mouse, the client directs the bear’s flashlight beam to move around the cave wall. When the beam lights up a target picture the client clicks on the picture and it enlarges. The client names the picture then clicks on it again. The computer names the picture while it shrinks, then the picture turns into a pot of honey. When all of the pictures have been named and turned into honey pots, the bear takes his pots and walks out of the cave, leaving all of the target pictures in a row at the bottom of the cave. The clinician can ask the client to name them again. If the client clicks on one of the pictures, it will enlarge. Another click and it will shrink as the computer names it. A click on the *right-facing arrow* in the bottom right hand corner of the game screen takes you to the Quick Results page. A click on *Finished* and *View Results* gets you to the final Results page.

**Response Options** Choose whether the stimulus presentation is in the form of the whole word (*W button*) or the word with the target sound (or syllables) separated (*S button*). Record and play the client’s responses with the *VCR-like buttons* underneath the stimulus picture. Show or hide the printed label of the picture by clicking on the *sunflower* symbol. Click on the *left-curving arrow* to repeat the game. View the options by clicking on *Options*, change games at any time by clicking on *Game*, and start each game using the *Start* button. If the client or clinician clicks on *Show Answer*, the computer chooses a picture to enlarge. Another click on *Show Answer* and the computer shrinks the picture, names it, and turns it into a honey pot. Hit *Print* to print a homework page, and click on *Finished* to get to the Results pages.

**Options** *Help, Volume, Flashlight, Rewards, Stimulus Presentation Order*

**Scoring** The clinician can keep track of the spontaneity and accuracy of the client’s productions by using four keys on the keyboard. To indicate a spontaneous correct response, type *Z*. For a spontaneous incorrect response type *A*. An imitative correct production is indicated by typing *C*, and an imitative incorrect production by typing *I* or *E*. These keys were chosen because they are easy to reach with little movement of the hand and are easy to use discretely. The computer will keep track of the clinician’s scoring and will summarize it on the Quick Results page.

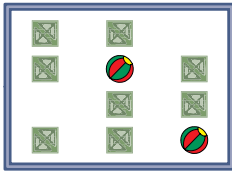




**Target Patterns** Words can be selected from five target patterns: final consonants, initial consonants, initial S clusters, initial L and R clusters, and two-, three-, and four-syllable words. The final consonant target pattern includes: final /p/, /t/, /k/, /ps/, /ts/, /ks/, /m/, /n/, and /l/. Initial consonant choices are /k/, /l/, and /r/. Initial S clusters include: /sp/, /st/, /sm/, /sn/, /sk/, /sl/, /sw/, and /skw/. Initial L and R clusters include the patterns: /kl/, /gl/, /fl/, /bl/, /pl/, /kr/, /gr/, /tr/, /dr/, and /fr/. The *mix* button presents random target sounds within a target pattern.

**Stimulus Pictures** Colorful drawings for each target word. There are ten pictures for each final and initial consonant target. Picture numbers for initial S clusters vary from four to nine. The L and R cluster targets have between four and eight pictures. There are ten pictures each for the two-, three-, and four-syllable words.

**Game Results** Quick Results: Target pattern, Word, Spontaneous Correct and Incorrect, Imitative Correct and Incorrect  
Final Results: Target pattern, Spontaneous Correct and Incorrect, Imitative Correct and Incorrect, #Words viewed



## Match Ups!

*Six Cards, Twelve Cards, Twenty Cards, Forty-eight Cards  
Final Consonants, Initial Consonants, Initial S Clusters,  
Initial L and R Clusters, Two-, Three-, and Four-Syllable Words*

**Objective** The client will attend to the auditory stimuli presented (auditory bombardment) and practice target words using a verbal rehearsal strategy to complete the game.

**How to Play** Match Ups! can be played with one to four players, or one player against the computer. Choose the number of players from the box in the upper left corner of the screen. The "C" stands for computer. If one client is playing against the computer, the clinician can choose the skill level of the computer from the *Options* menu. The clinician assists the client(s) in choosing the target phonological pattern, one of the four difficulty levels (the number of cards on the screen), and the card-back design from the menubar. When all the choices are made, the client clicks on *Start* to begin the game. The client then turns over one card by clicking on it with the mouse. The client hears the picture labeled, imitates the label, and tries to find the matching card. When a match is made, the two cards either disappear from the screen after three seconds or remain visible until the client clicks on the next card (see *Options* menu-*On Match*). The client then gets another turn. If two cards do not match, they are turned over when the next player, or the computer, chooses the next card. The client may hear the picture labeled again by clicking on the picture. The client continues to uncover pictures and find matching pairs until all of the matches have been found. The pictures will be different for the next game unless the client chooses to play the same game over by clicking on the *repeat* (left-curving arrow) button. Play a new game by clicking on the *Play Again* (right-curving arrow) button. At the end of each game the computer will automatically go to the Quick Results page.

**Response Options** Enter the players' names by highlighting Player 1, Player 2, etc. and typing the clients' names there. Click on the *left-curving arrow* to repeat the same game. Click on the *right-curving arrow*, or the *Start* button, to begin a new game. View the options by clicking on *Options*, change games at any time by clicking on *Game*, and start each game using the *Start* button. Note: you do not need to click on *Start* if you've moved to a new game by clicking on the *right-curving arrow*. If the client or clinician clicks on *Show Answer*, all of the cards are turned over. A click on *Hide Answer* turns the cards back over. A click on *Finished* gets you to the Results pages. Match Ups! has no homework pages, so nothing will happen if the *Print* button is chosen.

**Options** *Help; Volume; Computer Skill Level (Beginner, Intermediate, Expert, Master); Auditory Stimulus (Voice, No Voice); Target Text in Menubar (Hidden, Visible), On Match (Reset Cards, Wait for Click); Time to Make Choice (5 sec., 15, 30, 60)*

**Target Patterns** Broad targets available: Final consonants; Initial consonants, Initial S clusters; L and R clusters; and Multisyllabic words.

**Game Results** Quick Results: Game level and target groups played, Players, # Moves, # Matches, Time sec., % Correct  
Final Results: Game level and target groups played, Players, Computer (indicating the computer's score if the computer played), Completed (indicating whether or not the game was finished)

**Rationale** After being exposed to the *sound* of the target, the client must have extensive practice in *producing* the target. Hodson and Paden (1983) emphasize the importance of the client's saying the target sound or sequence as correctly as possible, so as to reinforce the correct kinesthetic sensations. Our experience has shown that a multi-sensory approach to placement, which includes auditory and kinesthetic feedback, has been the most effective approach to improving phonological processing and correct speech production.

## Phonology II Word List

### Final Consonants

mop	mo p	mops	mo ps	comb	co mb
rope	ro pe	ropes	ro pes	lamb	la mb
map	ma p	maps	ma ps	gum	gu m
cap	ca p	tops	to ps	drum	dru m
pipe	pi pe	caps	ca ps	crumb	cru mb
lip	li p	pipes	pi pes	climb	cli mb
cup	cu p	lips	li ps	dime	di me
top	to p	cups	cu ps	limb	li mb
pop	po p	pops	po ps	dream	drea m
rip	ri p	laps	la ps	name	na me
hat	ha t	hats	ha ts	moon	moo n
bat	ba t	bats	ba ts	rain	rai n
boat	boa t	boats	boa ts	can	ca n
dot	do t	dots	do ts	bone	bo ne
mat	ma t	mats	ma ts	sun	su n
note	no te	notes	no tes	cane	ca ne
boot	boo t	boots	boo ts	line	li ne
foot	foo t	jets	je ts	man	ma n
bait	bai t	pets	pe ts	fan	fa n
beet	bee t	beets	bee ts	bean	bea n
book	boo k	books	boo ks	car	ca r
bike	bi ke	bikes	bi kes	chair	chai r
lock	lo ck	locks	lo cks	door	doo r
rock	ro ck	rocks	ro cks	hair	hai r
kick	ki ck	kicks	ki cks	bear	bea r
cake	ca ke	cakes	ca kes	fir	f ir
lake	la ke	lakes	la kes	fur	f ur
rack	ra ck	racks	ra cks	four	fou r
sack	sa ck	sacks	sa cks	jar	ja r
rake	ra ke	rakes	ra kes	ear	ea r



Initial Consonants

cow c ow  
car c ar  
key k ey  
kick k ick  
cake c ake  
cook c ook  
cob c ob  
comb c omb  
cap c ap  
core c ore  
lock l ock  
log l og  
lake l ake  
leg l eg  
light l ight  
lip l ip  
line l ine  
lamb l amb  
lamp l amp  
leaf l eaf  
rock r ock  
rug r ug  
rake r ake  
rack r ack  
rag r ag  
roll r oll  
rope r ope  
road r oad  
red r ed  
rip r ip

Initial S Clusters

spot s pot  
spur s pur  
spoon s poon  
speck s peck  
spike s pike  
spook s pook  
spy s py  
spill s pill  
sponge s ponge  
store s tore  
stick s tick  
stop s top  
stem s tem  
star s tar  
step s tep  
stamp s tamp  
stool s tool  
stove s tove  
smoke s moke  
smile s mile  
smell s mell  
small s mall  
smack s mack  
snow s now  
snail s nail  
snake s nake  
sneeze s neeze  
snack s nack  
snowman s nowman  
snap s nap

school s chool  
sky s ky  
ski s ki  
scar s car  
scale s cale  
skunk s kunk  
scarf s carf  
scoop s coop  
slide s lide  
sled s led  
slime s lime  
slip s lip  
sleep s leep  
slim s lim  
swing s wing  
sweep s weep  
swim s wim  
sweater s weater  
square s quare  
squid s quid  
squirrel s quirrel  
squash s quash



Initial L and R Clusters

cry	cr y	clown	c lown
crack	cr ack	clock	c lock
crumb	cr umb	cloud	c loud
cream	cr eam	clam	c lam
crook	cr ook	clay	c lay
crate	cr ate	clap	c lap
crank	cr ank	climb	c limb
crane	cr ane	clip	c lip
green	gr een	glass	g lass
grass	gr ass	glue	g lue
grape	gr ape	glove	g love
grub	gr ub	globe	g lobe
gray	gr ay	glow	g low
ground	gr ound	glade	g lade
grade	gr ade	glad	g lad
graph	gr aph	glum	g lum
truck	tr uck	flag	f lag
train	tr ain	floor	f loor
trail	tr ail	fly	f ly
trunk	tr unk	flame	f lame
tree	tr ee	flake	f lake
trip	tr ip	flute	f lute
tray	tr ay	flip	f lip
trap	tr ap	flock	f lock
dress	dr ess	blue	b lue
drain	dr ain	black	b lack
drape	dr ape	blimp	b limp
drip	dr ip	block	b lock
drink	dr ink	plant	p lant
drum	dr um	plum	p lum
drive	dr ive	plane	p lane
drawer	dr awer	please	p lease
frog	fr og	plate	p late
friend	fr iend		
fruit	fr uit		
fries	fr ies		
front	fr ont		



Multisyllabic

cowboy	cow boy		
baseball	base ball		
ice cream	ice cream	magic markers	ma gic mar kers
football	foot ball	birthday present	birth day pre sent
popcorn	pop corn	jack-o'-lantern	jack o lan tern
beach ball	beach ball	water faucet	wa ter fau cet
balloons	bal loons	watermelon	wa ter me lon
puppets	pup pets	baby rattle	ba by rat tle
mittens	mit tens	laundry basket	laun dry bas ket
arrow	ar row	caterpillar	cat ter pil lar
birdhouse	bird house	picnic basket	pic nic bas ket
olive	o live	jack-in-the-box	jack in the box
bookcase	book case	flying saucer	fly ing sau cer
airplane	air plane	gingerbread man	gin ger bread man
blanket	blan ket	alligator	al li ga tor
cowboy hat	cow boy hat	life preserver	life pre ser ver
ice cream cone	ice cream cone	harmonica	har mon i ca
popcorn bowl	pop corn bowl		
basketball	bas ket ball		
birthday cake	birth day cake		
picture frame	pic ture frame		
sunglasses	sun glas ses		
turtle shell	tur tle shell		
banana	ba na na		
bicycle	bi cy cle		
ladybug	la dy bug		
butterfly	but ter fly		
lollipops	lol li pops		
spaghetti	spa ghet ti		
railroad tracks	rail road tracks		