

Fast ForWord Language Gateway Edition

This section describes each of the Fast ForWord Language Gateway Edition exercises in detail and then outlines the administration process. For information on how to install, set up, or run the software, refer to “Installing Fast ForWord Gateway Edition” on page 95 and “Using Fast ForWord Gateway Edition” on page 99.

The Exercises



The Fast ForWord Language product consists of seven exercises: three sound exercises and four word exercises. The exercises work together to develop four primary skill areas, including: listening accuracy, phonological awareness, working memory, and language structures. These are the fundamental skills necessary for learning to read.

The sound exercises present complex auditory information in a pre-word format, such as frequency sweeps and syllables. In some instances these speech sounds have been digitally altered using patented methods (including selective intensity increases and duration extensions) to provide enhanced learning opportunities. The three sound exercises included in the product are:

- Circus Sequence
- Old MacDonald’s Flying Farm
- Phoneme Identification

The word exercises present words, either in isolation or within sentences, with various levels of linguistic complexity. In some instances the speech sounds have been digitally altered using patented methods (including selective intensity increases and duration extensions) to provide enhanced learning opportunities. The four word exercises included in the product are:

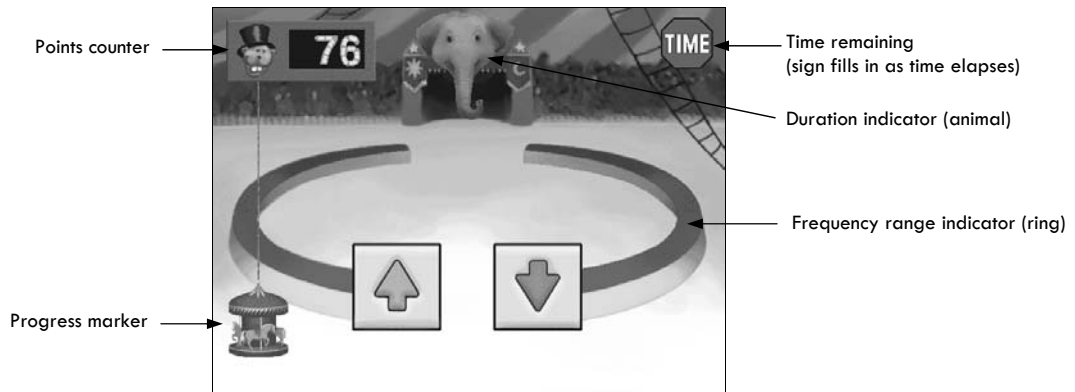
- Phonic Match
- Phonic Words
- Language Comprehension Builder
- Block Commander

Circus Sequence



Circus Sequence helps improve listening accuracy by presenting sweep sounds at different frequencies and durations, and with different lengths of time between sounds. Sweep sounds are tonal sounds whose frequency changes over time. The frequencies and durations of the sound sweeps correspond to some of the rapid transitions in the sounds of the English language.

The object of Circus Sequence is to repeat a sequence of two sweep sounds.



Circus Sequence

The participant clicks the yellow **sound button** in the center of the screen (not shown). A sequence of two sweeping sounds is presented. A sweep sound can be classified as “up” (a lower to higher frequency) or as “down” (a higher to lower frequency). The participant must click the **up arrow** or **down arrow** to repeat the sequence of sounds heard. For example, if the exercise presents an up sweep and then a down sweep, the participant clicks the up arrow once, and then clicks the down arrow once. If the exercise presents two down sweeps, the participant clicks the down arrow twice. Points are awarded when the sequence is correctly reproduced.

The **frequency range indicator** displays the current frequency range on which the participant is working. The ring changes color as each frequency range is entered:

Frequency Ranges	Ring Color
middle	blue
high	pink
low	red

The **duration indicator** displays the current duration of the sound sweeps on which the participant is working. For example, an 80 ms duration represents a sound sweep that lasts for 80 milliseconds. As the participant progresses in the exercise, the durations of the sound sweeps get shorter. The shortest duration, and consequently the highest level, is 25 ms.

The following animals represent these sound sweep durations, from the lowest level to the highest level:

Duration	Animal
visual help or extended durations	horse
80 ms	lion
60 ms	toucan
40 ms	hippo
35 ms	orangutan
30 ms	elephant
25 ms	giraffe

The **progress marker** indicates the trials that have been answered correctly by moving a little higher on the rope for each correct answer. Once the participant answers ten correct trials, bonus points are awarded, a reward animation plays, and the progress marker is reset.

Circus Sequence first presents sounds of durations longer than those typically found in natural speech. As the participant progresses, Circus Sequence decreases the duration of the sound sweeps and eventually presents the sweeps at durations typically found in natural speech, in order to challenge the participant to improve his or her rate of processing natural speech sounds. As the participant progresses, Circus Sequence also decreases the length of time between sound sweeps.

Circus Sequence starts with a preparatory stage for each frequency sweep in the exercise. After the participant has had some practice (and a little extra help) in the exercise, the preparatory stage automatically ends for that frequency sweep and the exercise begins. The preparatory stage will be revisited when the next frequency is encountered.

Once the skills in the exercise are mastered, the participant will continue to repeat the content at the shortest durations.



TIP The following keyboard shortcuts are available in Circus Sequence:

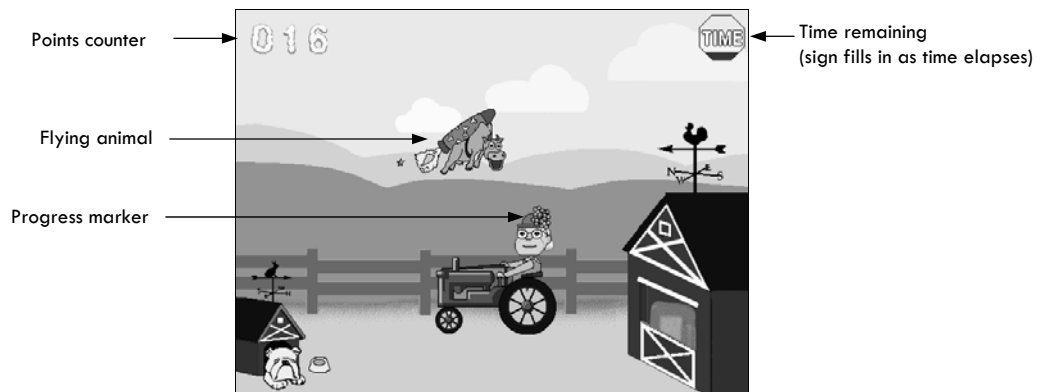
Button	Keyboard shortcut
Sound button	Up arrow
Up button (on left)	Left arrow
Down button (on right)	Right arrow

Old MacDonald's Flying Farm



Old MacDonald's Flying Farm helps improve phonological awareness, listening accuracy and working memory skills.

The object of the exercise is to capture the animals by correctly identifying when a new syllable interrupts a repeated syllable.



Old MacDonald's Flying Farm

The participant clicks and holds the **flying animal** with the mouse. The exercise then repeats a single syllable, such as *shu*, in rapid succession. When the exercise interrupts the repeated syllable with a different syllable (which differs by a single phoneme), such as *chu*, the participant must release the animal by releasing the mouse button. If the mouse is released too soon or too late, the animal will fly away and the trial will be counted as incorrect. Points are awarded for each correct answer.

The **scene** indicates the current phoneme set on which the participant is working. Each scene is inhabited by the following animals:

Phoneme Set	Scene	Animal
gi-ki	barn	cow
chu-shu	mud pit	pig
si-sti	garden	bunny
ge-ke	house	duck
do-to	coop	chick

The **progress marker** indicates the trials that have been answered correctly by adding flowers to Ms. MacDonald’s hat while she and her tractor advance a little bit forward. Once the participant answers ten correct trials, bonus points are awarded, a reward animation plays, and the progress marker is reset.

This exercise first presents phonemes in syllables that have been modified by introducing a silent gap in between the consonant sound and the vowel sound; for example, *ki* is initially presented as *k-i*. (The second syllable is always presented using normal speech parameters.) As the participant progresses through the exercise, Old MacDonald’s Flying Farm adapts by decreasing the duration of the silent gap until the repeated syllables are presented at the rate of natural speech. It also decreases the length of time between the repeated syllables as the participant progresses in the exercise.

Old MacDonald’s Flying Farm starts with a preparatory stage that helps the participant learn how to use the mouse to catch, hold, and release a flying cow. This stage begins with the cow asking the participant to “Hold me.” When the participant clicks and holds the cow for a moment, the cow then instructs the participant to “Let go.” When the participant demonstrates proficiency in these tasks, the preparatory stage automatically ends and the exercise begins.

Once the skills in the exercise are mastered, the participant will continue to repeat the content at the highest level.



TIP The following keyboard shortcuts are available in Old MacDonald’s Flying Farm:

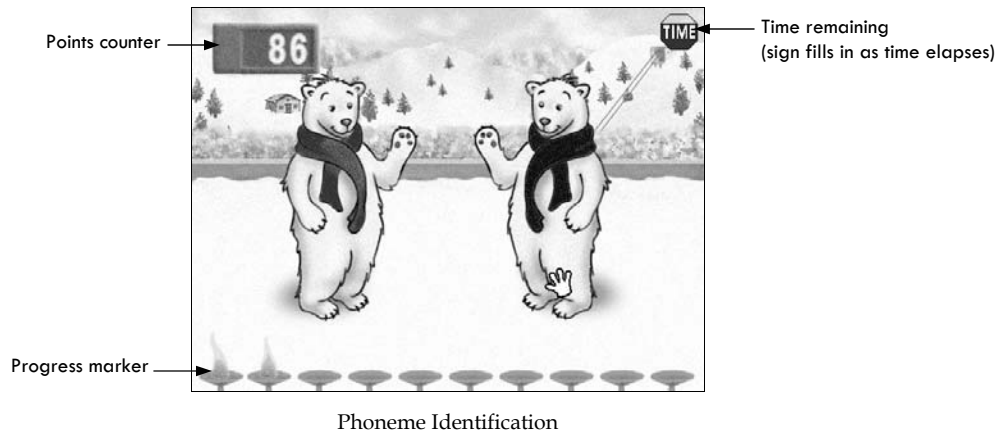
Button	Keyboard shortcut
Flying animal-hold	Space bar held down
Flying animal-release	Space bar released

Phoneme Identification



Phoneme Identification helps improve phonological awareness skills, listening accuracy, and working memory.

The object of Phoneme Identification is to correctly identify the character that presents the syllable that matches the target syllable.



The participant selects a character to begin the exercise. (If a character is not selected within a few seconds, the exercise automatically selects one.) The participant clicks the yellow **sound button** in the center of the screen (not shown) to hear the turtle pronounce the target syllable. Then, the participant must listen carefully as each of the two characters pronounces a different syllable. One of the characters pronounces the target syllable, while the other pronounces a syllable that does not match the target. The participant must click the character that pronounces the target syllable. Points are awarded for each correct answer.

The **scene** indicates the current phoneme set on which the participant is working:

Phoneme Set	Scene
va/fa	skiing
aba/ada	ice skating
ba/da	track and field
be/de	gymnastics
bi/di	swimming

The **progress marker** indicates the trials that have been answered correctly by adding a flame to each torch. Once the participant answers ten correct trials, bonus points are awarded, a reward animation plays, and the progress marker is reset.

Phoneme Identification first presents syllables where the duration of each consonant sound has been lengthened (for example, *ba* is initially presented as *bbba*) and where the intensity of each consonant sound has been increased (enhanced) relative to the vowel sound. As the participant progresses through the exercise, Phoneme Identification decreases the consonant duration and emphasis, and eventually presents the syllables using speech with natural characteristics. Phoneme Identification also decreases the length of time between syllable choices as the participant progresses.

Phoneme Identification starts with a preparatory stage that helps the participant learn how to press the sound button in order to hear the target syllable, and then how to associate that syllable with a character. When the participant demonstrates proficiency in these tasks, the preparatory stage automatically ends and the exercise begins.

Once the skills in the exercise are mastered, the participant will continue to repeat the content at the highest level.



TIP The following keyboard shortcuts are available in Phoneme Identification:

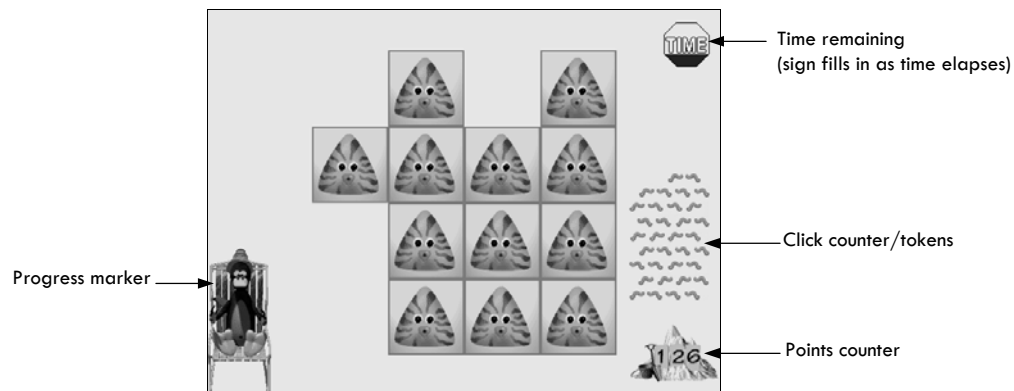
Button	Keyboard shortcut
Sound button	Space bar
Left animal	Left arrow
Right animal	Right arrow

Phonic Match



Phonic Match helps develop working memory, and also helps to improve listening accuracy, phonological awareness and auditory word recognition.

Phonic Match presents four, eight, and sixteen tiles in a grid format. Each tile has a syllable or word associated with it. The object of the exercise is to find each tile's match and clear the grid using the fewest number of clicks.



Phonic Match

The participant clicks a tile and listens to the word associated with that tile. The participant must click the other tiles in the grid to find the tile's match. If the participant clicks a new tile that matches a tile already clicked, they must go back and click the first tile of the pair to confirm the match. The two tiles disappear. Points are awarded for each correct match.

The **click counter** displays tokens that match the number of "clicks" available to earn points for each grid. One token is deducted for each click on a tile. However, even when these tokens are gone, the participant can still click tiles until the grid is cleared; they just don't earn the extra points. After the grid of tiles is cleared, any remaining tokens are awarded as bonus points and a reward animation plays.

Phonic Match starts with a 2 x 2 grid of four tiles. As the participant progresses, the exercise presents a 3 x 3 grid of eight tiles (the ninth is missing) and then a 4 x 4 grid of 16 tiles.

Phonic Match improves phonological fluency by presenting syllables and words that differ in initial or final consonants (duck/tuck, sha/ra, pub/pup). Phonic Match starts with syllables and words that have extended durations and emphasis (for example, *la* is initially presented as *llahhh*), enhancing the sound of each consonant. As the participant progresses through the exercise, Phonic Match decreases the extended duration and emphasis, and eventually presents the syllables and words using natural speech.

Phonic Match starts with a preparatory stage that helps the participant learn how to clear the grids. When the participant demonstrates an understanding of how to clear the grids, the preparatory stage automatically ends and the exercise begins. Unlike the other exercises, Phonic Match returns to this preparatory stage at the beginning of each session as a warm up for that session.

Once the skills in the exercise are mastered, the participant will continue to repeat the content at the highest level.

Phonic Words



Phonic Words helps develop phonological awareness, listening accuracy and auditory word recognition.

The object of Phonic Words is to distinguish between words that differ by initial or final sound, or both. For example, the words *rake* and *lake* differ by initial sound.



Phonic Words

The participant clicks the **sound button** on the right side of the screen. One or two pictures appear and the exercise instructs the participant to point to one of the objects. The participant must click the picture that represents the correct object. Points are awarded for each correct answer.

Phonic Words indicates a participant's progress by displaying **acorns** for the current processing level, where level 1 presents the most processed speech and level 5 presents natural speech. For example, three acorns indicate that the participant is working in level 3. When all five acorns are displayed, the participant is working in the highest level of the exercise.

The **progress marker** indicates the trials that have been answered correctly by advancing across the bottom of the screen, from left to right. Once the participant answers ten (or sometimes eleven) correct trials, bonus points are awarded, a reward animation plays, and a new progress marker appears on the left side of the screen.

Phonic Words starts with highly stretched and emphasized words (for example, *lake* is initially presented as *lllaakkke*), enhancing the sound of each consonant. As the participant progresses through the exercise, Phonic Words decreases the amount of stretch and emphasis, and eventually presents the words using natural speech.

Phonic Words starts with a preparatory stage that helps the participant learn how to click the sound button to hear the instructions, and how to use the mouse to respond. When the participant demonstrates proficiency in these tasks, the preparatory stage automatically ends and the exercise begins.

Once the skills in the exercise are mastered, the participant will continue to repeat the content at the highest level.



TIP The following keyboard shortcuts are available in Phonic Words:

Button	Keyboard shortcut
Sound button	Up arrow
Left picture	Left arrow
Right picture	Right arrow

Language Comprehension Builder



Language Comprehension Builder helps improve the participant's understanding of the relationship between words, grammar, and meaning (language structures). Along with the other exercises, it helps increase the speed at which the participant identifies and understands rapid, successive changes in sound (listening accuracy).

The participant hears a sentence or a question and sees two to four pictures that are possible representations of the sentence or question. The object is to identify the picture that best represents the sentence or answers the question by clicking on the correct picture.



Language Comprehension Builder

The participant clicks the **sound button** on the right side of the screen. A sentence is pronounced. The participant must click the picture that most accurately represents the sentence. Points are awarded for each correct answer.

Language Comprehension Builder indicates a participant's progress by displaying **stars** for the current processing level, where level 1 presents the most processed speech and level 5 presents natural speech. For example, three stars indicate that the participant is working in level 3. When all five stars are displayed, the participant is working in the highest level of the exercise.

The **progress marker** indicates the trials that have been answered correctly by adding a new token at the bottom of the screen. Once the participant answers ten correct trials, bonus points are awarded, a reward animation plays, and the progress marker is reset.

Language Comprehension Builder uses questions and sentences that involve a range of grammatical difficulty, ranging from grammar level two to eight. These levels roughly correspond to the age at which the grammar concepts in each group are typically mastered.

Language Comprehension Builder poses sentences and questions such as:

- “Point to her.” (level 2)
- “The girl will paint a picture.” (level 6)
- “The cat is not being outrun by the dog.” (level 8)

Levels 7 and 8 expose the participant to more complex grammar, but the participant is not required to master levels 7 or 8 in order to advance in the exercise.

Language Comprehension Builder starts with highly stretched and emphasized speech (for example, *cat* is initially presented as *ccatfff*), enhancing the sound of each consonant. As the participant progresses through the exercise, Language Comprehension Builder decreases the amount of stretch and emphasis, and eventually presents the words using natural speech.

Language Comprehension Builder starts with a preparatory stage that helps the participant learn how to associate a sentence with an appropriate picture. When the participant demonstrates proficiency in this task, the preparatory stage automatically ends and the exercise begins.

Once the skills in the exercise are mastered, the participant will continue to repeat the content at the highest level.



TIP The following keyboard shortcut is available in Language Comprehension Builder:

Button
Sound button

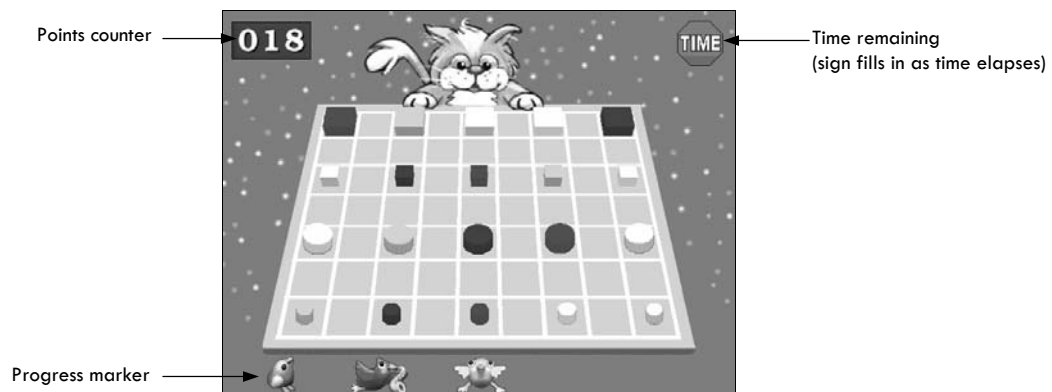
Keyboard shortcut
Space bar

Block Commander



Block Commander helps improve working memory, language structures and listening accuracy.

Block Commander presents a three-dimensional board with rows of colored shapes. The participant clicks the sound button to hear instructions, such as “Touch the red square and the blue circle.” The object of the exercise is to accurately follow the instructions in the order presented.



Block Commander

The participant clicks the yellow **sound button** in the center of the screen (not shown) to hear an instruction. The participant must then follow the instructions. To touch a shape, the participant must click it. To move a shape, the participant must click and hold the mouse, drag the shape to the new location, then release the mouse button. Points are awarded for correct answers.

When the instructions are followed incorrectly, the exercise repeats the instructions and displays the correct action.

The **progress marker** indicates the trials that have been answered correctly by adding a new token at the bottom of the screen. Once the participant answers five correct trials, bonus points are awarded, a reward animation plays, and the progress marker is reset.

Block Commander starts with highly stretched and emphasized speech (for example, *red* is initially presented as *rrreddd*), enhancing the sound of each consonant. As the participant progresses through the exercise, Block Commander decreases the amount of stretch and emphasis, and eventually presents the sentences using natural speech.

Some of the trials in Block Commander expose the participant to more complex instructions, but the participant is not required to master these trials in order to advance in the exercise.

Block Commander starts with a preparatory stage that demonstrates the sizes, shapes, and colors referenced in the instructions. When the participant shows proficiency in this task, the preparatory stage automatically ends and the exercise begins.

Once the skills in the exercise are mastered, the participant will continue to repeat the content at the highest level.



TIP The following keyboard shortcut is available in Block Commander:

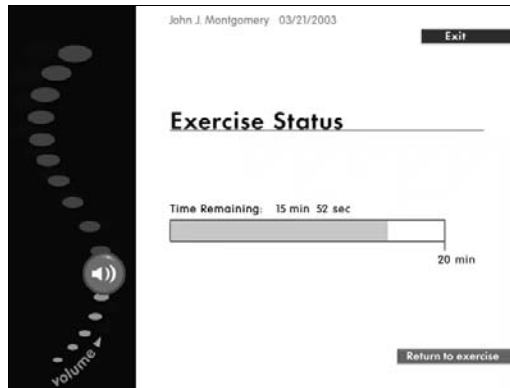
Button	Keyboard shortcut
Sound button	Space bar

Administering the Exercises

Use the following information to help administer the Fast ForWord Language session. For details on how to start the exercises, please refer to “Using the Fast ForWord Gateway Edition Exercises” on page 133.

Checking the Exercise Status

While participants are working on an exercise, use the Exercise Status screen to adjust the volume, view the time remaining, or quit the current exercise early.



Exercise Status screen

To access the Exercise Status screen while a participant is working on an exercise:

- **Windows:** Press and hold **Ctrl**, then press =
- **Macintosh:** Press and hold **Command** (apple key), then press =

Please note that the Exercise Status screen cannot be accessed during a reward animation or during a trial.

When the Exercise Status screen is open:

- To adjust the volume, click and drag the sound button on the left of the screen.
- To return to the exercise, click Return to Exercise.
- To quit the exercise, click **Exit**.



NOTE Each exercise maintains the volume setting for that participant across days, and does not need to be set again.



IMPORTANT The exercise clock does not pause while the Exercise Status screen is displayed. If the participant needs to take a break, do not take the break when the Exercise Status screen is displayed. Instead, take the break after the exercise ends.

Completing an Exercise

At the end of each exercise, the participant is congratulated on a successful exercise and the points earned during that exercise are displayed. The product then presents the Select an Exercise screen.

To continue working, select another exercise. To take a short break, remain at the Select an Exercise screen; when the participant is ready to work again, they click the next exercise.

The exercises that the participant has already completed that session will appear “grayed out” on the Select an Exercise screen. (When an exercise is grayed out, it cannot be selected.) Exercises that are not available on that day will remain grayed out.

However, if the participant has worked on an exercise but has not spent the total number of minutes required in the exercise, that exercise will also appear grayed out. To revisit an incomplete exercise, the participant must return to the Exercises screen in Fast ForWord Gateway Edition and reenter the product. The following example illustrates this process:

- A participant works on Circus Sequence for 10 minutes in the morning and uses the Exercise Status screen to exit the exercise before the required 20 minutes are complete. That exercise will appear grayed out on the Select an Exercise screen. However, when that participant returns that afternoon and opens the product to the Select an Exercise screen, Circus Sequence will be available and only require 10 more minutes of work to complete the exercise for the day.

The participant should continue working on all unfinished exercises until all of the exercises are completed for that day. Bonus points are awarded when the protocol is met for that day.

Completing the Session

After the participant meets the protocol for that day, an animation moves across the screen, signaling the end of the session, and bonus points are awarded. Then the Success Viewer appears.



NOTE A participant may return to an exercise after completing the session, if desired. Working on a scheduled exercise at this point will not affect the next day's protocol.

The Success Viewer

At the end of the day's session, the product calculates the results for that participant and displays the Success Viewer. This provides the participant with an immediate review of his or her performance, as a reward and a motivation to continue working on the exercises.

For a more detailed performance review, to review performance for groups of participants, or to review performance at a later date, use the Fast ForWord Gateway Edition Results screen. Please refer to "Reviewing Results" on page 149 for more information on this feature.



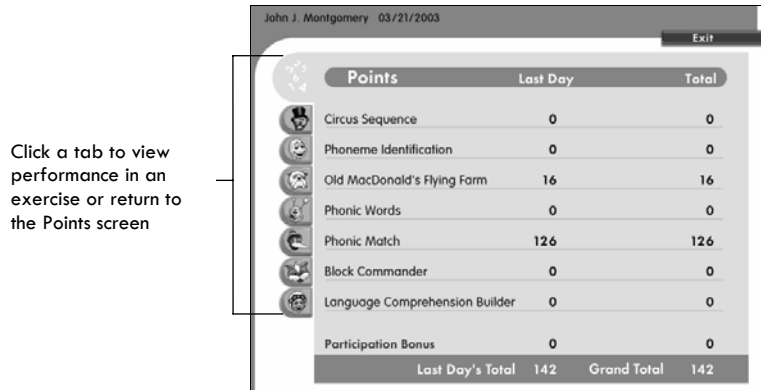
TIP For the most detailed performance review, including extensive historical reports, Scientific Learning provides Fast ForWord Progress Tracker. For more information on what this product offers, see "Fast ForWord Progress Tracker" on page 167.

The Success Viewer Screens

The Success Viewer opens with the **Points** screen as the selected tab. The points for the last participation day (the current day if the participant has just finished working) as well as the total accumulated points are displayed.



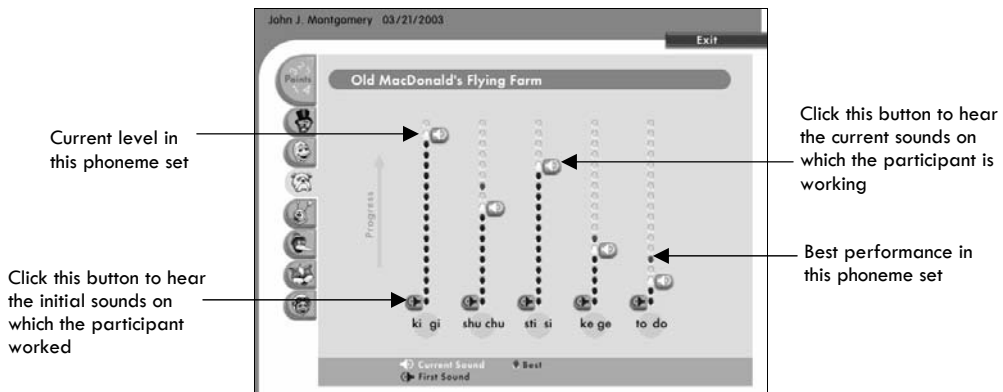
NOTE The number of points earned in an exercise does not always reflect the participant's performance in that exercise; points are used only as a reward for correct answers, and to encourage the participant to continue working on the products.



Click a tab to view performance in an exercise or return to the Points screen

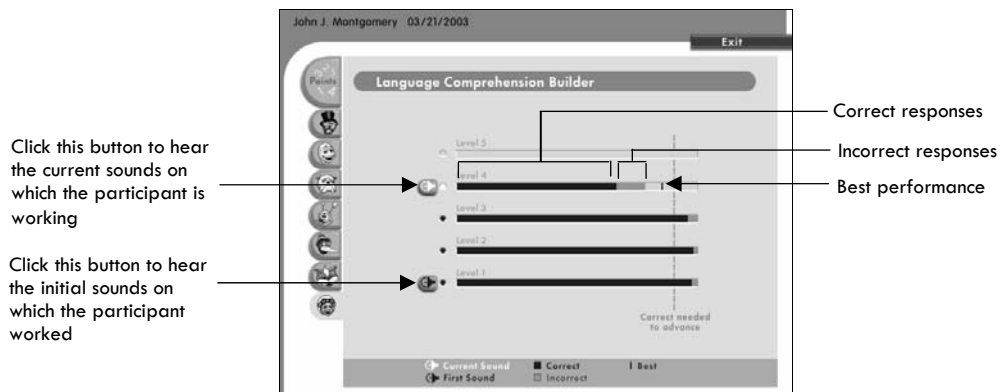
Success Viewer Points screen

To view details about the participant's performance in each individual exercise, click the corresponding tab on the left side of the Success Viewer screen. The screens for Circus Sequence, Old MacDonald's Flying Farm, Phoneme Identification and Phonic Match display a vertical graph for each sound pair, sweep duration, or word set. (An example of Old MacDonald's Flying Farm is shown.)



Success Viewer Exercise screen

The screens for Phonic Words, Language Comprehension Builder, and Block Commander display horizontal bar graphs. (An example of Language Comprehension Builder is shown.)



Success Viewer Exercise screen



NOTE If the bar representing correct answers does not reach the dashed line labeled “Correct needed to advance,” the participant must repeat all of the questions at the level, and the graphical representations for the level are reset.

To exit the Success Viewer, click **Exit**.

The Default Protocol

By default, Fast ForWord Language is configured to present three to five exercises, for a total of 50 minutes each day. Each day’s participation time can be divided into multiple sessions.

Using this protocol, Scientific Learning recommends that participants work on Fast ForWord Language five days a week, for an estimated 8 to 12 weeks.

Keep in mind that a consistent daily routine that allows for intense repetition will maximize the benefits of the exercises. Participants may take breaks between exercises, but not while an exercise is open.



IMPORTANT Alternate protocols are available to meet different participant requirements. Please refer to “Selecting an Alternate Protocol” on page 126 for more information. For details on all available protocols, refer to the *Fast ForWord Best Practices Implementation Guide*, available online at www.scientificlearning.com/gateway/bestpractices.
