



# **ELE-BOT**Teacher Manual

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# **Goals/Objectives**

#### **English Language Arts Standard(s)**

Conventions of Standard English: students will be able to demonstrate command of the conventions of standard English grammar and usage

Vocabulary Acquisition and Use: students will be able to determine or clarify the meaning of unknown and multiple-meaning words in phrases, choosing flexibly from an array of options

### Language/ **Reading Skills**

Students will be able to...

- demonstrate understanding of English grammar and usage elements
  - o adjectives, comparatives, quantifiers
  - singular/plural nouns and verbs
  - o possession
  - simple negation
  - subject-verb agreement
  - o pronouns
  - verb tenses
  - o prepositions
  - o active/passive voice
  - clauses
- demonstrate understanding of vocabulary in terms of meaning, phonological structure, and grammatical role
  - o use sentence-level context as a clue to the meaning of a word or phrase
  - use frequently occurring affixes as a clue to the meaning of a word
  - use frequently occurring root words (e.g. look) and their inflectional forms (e.g. looks, looked, looking)

# **Cognitive Skills**

Students will be able to...

- hold a question/statement in working memory while retrieving pictureconcept associations from their long-term memory to identify the correct response (memory)
- use word order to comprehend simple and complex sentences (sequencing)

#### Social-Emotional/ **Executive Function Skills**

Students will be able to...

- selectively focus and sustain attention on a lesson or an activity
- inhibit impulsive responses
- regulate emotional responses (e.g. excitement or frustration)

**Icon Key** 













Audio

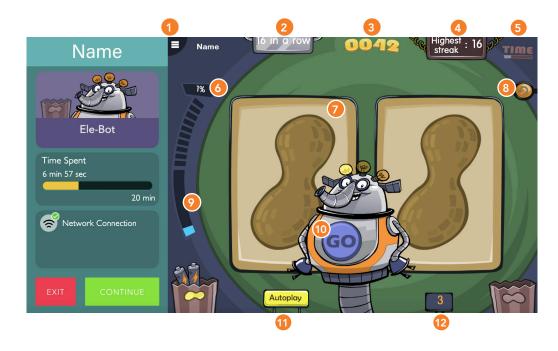
Download

**English Learner** 

Quick Check

Settings

# **Exercise Screen**



#### 1 Menu

Shows:

- Time Spent / Time Scheduled for the exercise.
- Network connection status.
- Exit: Returns student to the Assignments screen.
- Continue: Returns student to the exercise.

#### Current Streak

Shows the current number of consecutive correct answers in the session.

#### Points

Shows total points awarded across all of a day's sessions.

- Correct answers: 2 points for each correct answer.
- Bonus points: 10 points after 12 correct answers.
- Autoplay bonus: double the usual points if all answers in a set are completed correctly.

#### 4 Highest Streak

Shows the highest number of consecutive correct answers in this session.

## **5** Time

Fills in from left to right to show the amount of time spent vs. the time scheduled for the exercise.

#### O Progress Meter

Tracks and celebrates every 10% of exercise content completion. Shows actual percent complete for the exercise.

#### Answer Buttons

Respond to a question by clicking the picture that most accurately represents the statement or answers the question.

## 8 Replay

Repeats the question or sentence to be answered.

#### 9 Feeder Meter

Tracks and celebrates every 1% of exercise content completion.

#### 10 Go

Presents a question or series of Autoplay questions.

# 11 Autoplay

Turns Autoplay on or off; when "on" each click of the Go button presents a series of three or more questions.

## 12 Autoplay Counter

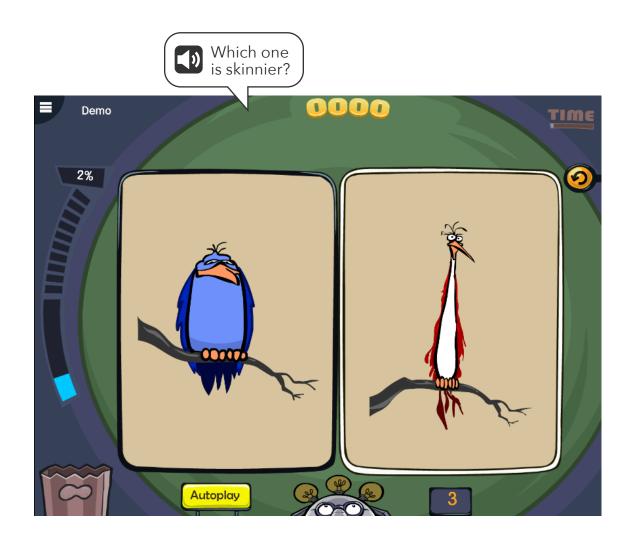
When an Autoplay sequence is in progress, this counter shows how many questions remain in the sequence.



# **Task**

The Ele-Bot exercise starts by presenting Ella, the electric robot.

- 1. Clicking the Go button activates the robot.
- 2. Two to four pictures are revealed on the screen.
- 3. A statement or question is heard.
- 4. Students click the image that best represents the statement or answers the question.
- 5. Corrective feedback is presented.
- 6. The set of images disappear, setting the stage for the next question.





### **Content**

In Ele-Bot students progress through five speech processing levels. Within each speech processing level, Ele-Bot presents content that covers a range of grammatical content and difficulty. Across the levels, grammatical content includes:

Language Structure	Example
Object Pronouns: Him & Her	Point to "him."
Description Words	Which is "heavy"?
Action Words	Which is "eat"?
Predicative Adjectives	The tub is full.
Comparative with More	Which one is more prickly?
Comparative with -er	Which one is bigger?
Quantifier: None	Look at these bowls with goldfish. Which bowl has none?
Quantifier: Some	Look at the boxes with carrots. Which box has some?
Singular Nouns	Choose the picture of the dog.
Plural Nouns	Choose the picture of the dogs.
Singular Nouns with Quantifier: A	Choose the picture of a dog.
Plural Nouns with Quantifier: Some	Choose the picture of some dogs.
Singular Auxiliary Verb: Is	The sheep is eating.
Plural Auxiliary Verb: Are	The sheep are eating.
Singular Verbs	The sheep eats.
Plural Verbs	The sheep eat.
Possession: Has	The cat has stripes.
Possession: Apostrophe-s	Which is the baby's bird?
Wh- Object Questions	What is the dog chasing?
Who vs. What	Who is by the door?
Simple Negation	The box is not open.

Language Structure	Example		
Third Person Subject Pronouns	She is walking.		
Active Voice	The cat is following the dog.		
Passive Voice	The dog is being followed by the cat.		
Passive Voice with Negation	The cat is not being followed by the dog.		
Present Tense	The boy is opening the box.		
Past Tense	The boy opened the box.		
Future Tense	The boy will open the box.		
Preposition: For	The box is being carried for the doctor.		
Preposition: With	The box is being carried with the doctor.		
Complex Negation	The dog that is not running is big.		
Object Relative Clauses	The cat is chasing the dog that is big.		
Object Relatives with Relativized Objects	The cat is following the dog that the mouse is leading.		
Subject Relative Clauses	The dog that is black is following the cat.		
Reduced Subject Relative Clauses	The teacher smiling is helping the girl.		
Sentences with Subject Relative Clauses and Noun-Verb-Noun Endings	The dog that is following the cat is black.		
Sentences with Reduced Subject Relative Clauses and Noun-Verb- Noun Endings	The girl helping the teacher is smiling.		
Relative Pronouns with Double Function	The cat that the dog is following is black.		
Sentences with Double Embedding	The dog that is following the cat that is black is white.		
Cleft Sentences	It's the dog that the cat chases.		

#### **Progression**

In Ele-Bot students progress through five speech processing levels. In the early levels, Ele-Bot presents questions and sentences in which the speech sounds have been digitally altered. As students progress through the exercise, the processing level decreases and eventually the guestions and sentences are presented using natural speech.

#### Vocabulary Pre-Teaching

- For the first 10 days, Ele-Bot starts the first session of the day with a pre-teaching activity to help familiarize students with the vocabulary in the exercise.
- Each session presents 9-10 words.
- Each word is illustrated with 1-2 pictures, and the word is pronounced and sometimes used in a sentence.
- After a few moments, the pictures disappear. If the student wishes to review a word, they may click the replay button once. Otherwise, the student clicks the Go button to continue with the activity until all of the words for the day have been presented.

#### Standard Levels

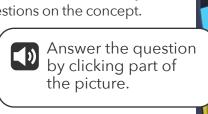
The student proceeds with the standard exercise questions. The student does not work on all types of grammatical content in each processing level. Ele-Bot adapts to students' performance introducing new content and removing mastered content, ensuring that students move through the content at an appropriate pace, while focusing on the content that is challenging.

# **Targeted Practice**

This exercise uses built-in, responsive technology to detect when a student is struggling and administer targeted, inline instruction-right when the student needs it-without any external resources or assistance required. This helps reduce frustration as it quickly gets the student back on track, so they can continue making progress.

Ele-Bot provides a variety of targeted practice activities when needed. The student can receive 1 or 2 of these interventions at a time, depending on the task and difficulty level with which the student is struggling. Each intervention takes a few seconds to 2-3 minutes to complete. The student's progression in the exercise stops temporarily while working through an intervention, then resumes when the student returns to the regular exercise content.

One type of intervention is Picture Exploration, where students are asked to click the part of the picture that correctly answers a specific question. Students are provided immediate feedback as to whether their answer is correct or incorrect followed by additional questions on the concept.







# Did you know?

Reading comprehension is a complex skill that requires students to recognize individual words, access their meanings, and interpret grammatical structures - simultaneously! Readers must also draw on their background knowledge, in order to understand the message that the print conveys. Cognitive skills such as working memory are essential for keeping track of and integrating these various strands of information. Skilled reading demands that students construct a coherent and integrated mental representation of the text based on these many skills.

The Ele-Bot exercise helps students become skilled readers by developing their understanding of the relationship between words, grammar, and meaning (language structures). It also helps increase the speed at which they identify and understand rapid, successive changes in sound (listening accuracy).

Students will see a variety of grammatical structures, but the following are some of the most common:

**Subject-Verb Agreement**: a singular subject takes a singular verb, e.g.,

The child is smiling. A plural subject takes a plural verb, e.g., The children are smiling.

**Passive-Voice - Negative**: We use the passive voice when the subject is not important or when we do not know the subject. A sentence in the passive voice focuses on the action. To negate a sentence in passive voice, put 'not' after the helping verb, e.g.,

The window not broken by a rock. helping verb negative preposition agent of subject verb past the action participle

Subject and Object Relativization: in sentences with reduced subject relative clauses and noun-verb-noun endings, information related to the sentence topic is put into the middle of the sentence to give the reader more information and make clear distinctions, e.g.,

> The girl helping the teacher is smiling. reduced subject relative clause predicate

Which girl is smiling? The girl who is helping the teacher.

The ending, "teacher is smiling," can make this type of sentence especially confusing. Students who don't recognize the role of the reduced subject relative clause may misinterpret this sentence as "the girl is helping and the teacher is smiling."





Have you ever worked with a student who had modifications for additional think time, extra wait time, or for teachers to speak more slowly? All of these modifications provide the student with extra time to make sense of information, also known as processing time. For students who struggle with processing speed, and for those learning a new language, slowing down the rate of speech and emphasizing specific sounds can be very beneficial to develop accurate phonological representations, while increasing comprehension.

# "Why does everything sound so strange?"

Fast ForWord's acoustically modified speech technology (sometimes referred to as "glasses for the ears") slows and emphasizes speech sounds so that students can hear all sounds in a word. This technology can even stretch out sounds that are physically impossible for human speakers to stretch on their own.

Some speech sounds, such as the /b/ sound in the word "bat," have very fast transitional elements. When we say them aloud, these elements are easy to miss, but slowing them and emphasizing them (by presenting them at a higher volume) helps the brain to hear and respond to them more quickly.

The modified words and syllables in the Fast ForWord exercises may sound strange or mechanical to those who process sounds quickly. But for students who need a little extra time, the modified sounds and words will be easier to hear than natural speech. As students progress, the stretching and emphasis are reduced, pushing the brain to process at faster and faster rates until it can process natural speech.

- Why Does Everything Sound So Strange? (Student) in <u>Student & Teacher Resources</u>
- Why Fast ForWord Sounds the Way it Does (Teacher) in <u>Student & Teacher Resources</u>





#### Introduce

#### **Engage**

When you're ready to introduce the exercise to your students, you can start by calling out how grammar impacts meaning. Say: Think of a time when you didn't hear something that someone said to you. What happened? Give an example, like: Have you ever played Simon Says? What happens if you don't hear or understand the instructions? Students can share what happens when they don't hear or understand directions or commands, with the idea being that they all come to the conclusion that you might miss something important if you aren't paying attention. Say: The same is true with this Ele-Bot exercise; you have to be careful to pay attention to every word in the sentence and the order of the words.

Students will encounter subject-verb agreement tasks in Ele-Bot, so it will be helpful to have students practice singular/plural subject-verb agreement rules. There's nothing like a good "Yes" question answered with a complete sentence to see if they understand subject-verb agreement.

For example, ask students: Does your friend like carrots? Do your friends like carrots? Write their responses on the board: "Yes, my friend likes carrots. Yes, my friends like carrots." Ask: Who is each sentence about? (my friend, my friends) Yes, 'my friend' and 'my friends' are the subjects of the sentences. Which is plural? Singular? What other word changes when you answer the questions and how does it change? (like > likes)

Encourage students to generate similar questions and repeat the activity. Continue the activity, but this time work with examples with other irregular subject-verb agreement examples, especially subjects that are the same in both their singular and plural forms, for example: shrimp, salmon, squid, moose, deer, buffalo, aircraft, spacecraft, and so on.

#### Demo

- 1. Say: Today, we're going to practice identifying the picture that best matches a sentence or answers a question. Together, we'll work on an exercise called Ele-Bot. I'll get us started, and then I'd like for you to try.
- 2. Project the Ele-Bot Introduction (English or Spanish) demo.
- 3. Describe the details you see in each picture.
- 4. Find the picture that best matches the statement or answers the question.
- 5. Explain why this is the best match, and how you ruled out other options.
- 6. Click the correct picture.
  - Correct answer: a "ding" sound effect plays, the rollover light is replaced by a "golden glow" and points are awarded
  - Incorrect answer: a "thunk" sound effect plays, the correct answer is highlighted, the incorrect answers are darkened
- 7. Keyboard Shortcuts:
  - Go button = Space bar
  - Possible answers (left to right start in top row) = Number keys 1 - 4

Direct students to log in and work individually on the Ele-Bot Demo for approximately 10 minutes. This time period mimics the timing of the exercise once it's assigned. Debrief with students to ensure they understand the task and objective of the exercise. Ask: What did you notice? Have students share anything that they have questions about.





Ele-Bot includes instructional audio for the exercise introduction and instructions. By default, these are presented

in English. You can, however, select Spanish instructions for all, some, or individual students on the Manage page in mySciLEARN.



# **Monitor Student Progress**

Review Ele-Bot reports regularly to monitor student progress. Use the data to determine which students are succeeding and which students might be struggling to make progress.

#### Where to look...

#### **PROGRESS: Foundations I Exercise Progress - Ele-Bot**

The colored line shows student progress and their percent complete. Each dot indicates a day the student worked on the exercise.



#### What to look for... what it means

#### Is the line going up?

The student is completing content accurately and making progress.

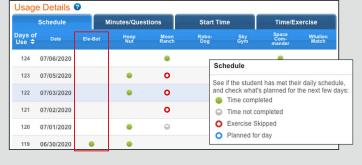
#### Is the line flat across several dots?

The student may be struggling and you need to find out why.

#### Are there long lapses between dots?

The student may be skipping this exercise.

# **USAGE: Usage Details - Schedule**



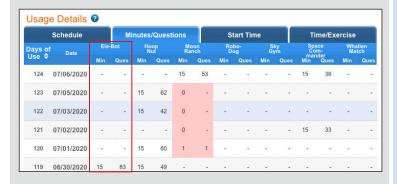
#### Do you see half-filled gray circles?

The student is working on this exercise, but not meeting the scheduled time. Make sure that they have time to complete their daily schedule. If fatique is an issue, add some breaks to their schedule.

#### Do you see red circles?

The student is skipping this exercise. Provide support to help them re-engage.

#### **USAGE: Usage Details - Minutes/Questions**



#### Are many days highlighted in red?

The student is not meeting their daily schedule. Check the Schedule tab in this report to investigate further.

#### Is the student answering fewer questions than usual?

They may be distracted or losing focus. In comparison to their previous activity, a low number of trials to minutes may indicate the student is not applying themselves to the task.

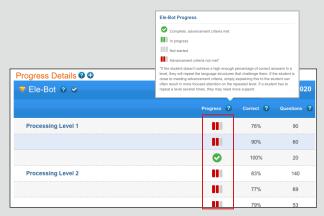
#### Is the student answering more questions than usual?

They may be rushing. In comparison to their previous activity, a high number of trials to minutes may indicate the student is trying to amass points, or to progress more quickly, but rushing can result in mistakes. Remind them that making progress depends on accuracy, not speed.



#### Where to look...

#### **PROGRESS: Progress Details - Ele-Bot Progress**



#### **Percent Correct**

To make progress, students must get 80-90% correct on a question group. Levels include multiple question groups.

#### Questions

The number varies depending on level. If a level must be repeated, the student may only be required to repeat a subset of the language structures, in which case the number of questions will be reduced.

#### What to look for... what it means

#### Are there red bars under Progress?

When the student doesn't achieve a high enough percentage of correct answers they will repeat a level (or at least repeat those language structures they are struggling with). It is important to note how close the student is to meeting the advancement criteria. Often, simply explaining this to the student can result in more focused attention on the repeated level. If a student has to repeat a level several times, they may need more support.

#### Is percent correct above 80%?

The student is close to the criterion for progressing (80% or 90% correct, depending on the question group). Encourage them to avoid mistakes by slowing down, thinking about each question, and using the Replay button. Note that a student with a high percent correct on a level may have only passed some question groups and not others. In this case they must repeat the question groups not already passed.

#### Is percent correct well below 80%?

The student may be struggling with one or more language structures. Check Errors section of this report to determine where the student needs additional support.

When a level is repeated, does the number of questions decrease?

The student has mastered some language structures at this level and is making progress.

#### When a level is repeated, does the number of questions stay the same?

The student has not mastered additional language structures. If their percent correct increases, they are learning from their mistakes and may simply need more practice. Remind them to listen to and observe the corrective feedback to better understand why their answer was wrong before moving on to the next question. Otherwise, check the Errors section of this report which can help you determine where the student needs additional support.

#### **PROGRESS: Errors - Ele-Bot**

Content the student is struggling with is highlighted in red.

	Errors	Question
Action Words	7%	2/30
Example: Which is "eat"?		
Active Voice	.0%	1/21
Example: The cut is following the dog.		
Sleft Sentences	275	8740
Example: It's the dog that the cut chases.		
Complex Negation	17%	6735
Example: The dog that is not running is big.		
Description Words	2%	1/30
Example: Which is Treavy"?		
Future Tense	18%	11.760
Example: The boy will open the box		
Object Relative Clauses	4%	2/35
Example: The cut is chasing the dog that is big.		
Object Relatives with Relativized Objects	11%	4/35
Example: The car is following the dog that the mouse is leading.		
Passive Voice	17%	6735
Example: The dog is being followed by the cat.		
Passive Voice with Negation	37%	18 / 49
Example: The car is not being followed by the dog.		

#### Are specific language structures highlighted in red?

Consider providing the student with instruction on the specific vocabulary and/or language structures with which they are struggling.

See the "Adjust Instruction/Intervene" section in this teacher manual for suggestions on supporting struggling students.



Foundations I Progress Monitoring Chart in <u>Student & Teacher Resources</u>



# **Adjust Instruction/Intervene**

#### **Differentiation Activities**

Differentiating instruction requires continually striving to know and to respond to each student's needs in order to maximize learning. Use the data in Ele-Bot reports to adjust instruction to meet each student's needs and respond to variance among learners. The activities below are suggestions to support students who might be struggling with their progress in Ele-Bot.



#### Does the student understand the exercise goal/task?

Observe the student as they work through the exercise demo to determine where their understanding may be breaking down. Make sure the student clearly understands the task of the exercise. Ask: Can you tell me what this exercise wants you to do? If needed, explain how the exercise works. Say: The computer will ask you a question or make a statement. You must click on the picture that best answers the question or matches the sentence.

Listen along with a student while they work on the exercise. Say: Repeat the question or sentence back to me and explain why you would choose one picture over the others before you click on the picture. This will help you identify if the student is having trouble with listening comprehension, paying attention, and/or understanding the vocabulary or grammatical concepts presented.



#### Are there words in the sentence or question or answers that the student doesn't know?

Engage the student in an offline activity, such as flashcards, that focus on the specific vocabulary they are struggling with.



#### Is the student using their memory skills?

Ask the student to repeat the sentence or question back to you. If they are having difficulty remembering, encourage students to build more memory and focused attention by practicing with you in a game. For example, give your student a 3 letter word to spell out loud. Then ask them to spell it out loud but backwards. See if they can spell 4 or even 5 letter words backwards! If the student can't spell yet, you can play a following directions game like Simon Says.

Both of these games can help the student practice using their memory and attention skills while having fun, which can increase motivation and improve their progress in this exercise.







#### Is the student noticing the details in the pictures that provide clues to the correct answer?

Discuss the importance of looking closely at each picture before choosing an answer. Remind the student that they can use the Replay button to listen to the question or sentence again before answering. Go into the Ele-Bot demo and ask the student to describe some of the pictures, giving plenty of detail.

If they need more support, say: It's important that we can notice little things about pictures. Ask questions relevant to the picture, such as: Who are the characters? What are the characters doing? What objects are shown? How could you describe the objects? Where is this picture happening? What is happening in this picture?

For further sup	port, provide students	with	verbal	sentence	frames	as needed:	The
character is	$_{-\!-\!-}$ . The object is $_{-\!-\!-}$	Th	is pictu	re is happ	ening ir	n/at/by/on	
In this picture _	is/are						



#### Can the student eliminate any alternatives?

Listen to a sentence or question with the student. Can they identify at least one picture that does not fit the sentence or answer the question? This could help the student narrow down their choices, and it also has the benefit of making them think through their response instead of just answering impulsively.



## Is the student struggling with a specific language structure?

Look at the Errors section in the student's Progress Report to determine the specific language structure the student is struggling with, then provide an activity that focuses on the specific language/grammar concept.



#### Can the student identify unnecessary words in the question or sentence?

Listen with the student and observe them as they complete an exercise question. Remind the student that before answering, they can listen to the question or sentence again by clicking the Replay button. Ask the student to identify any words that are unnecessary in a sentence they are working on, and then explain why to the student. Then have the student point to the picture that best matches the reduced sentence.

Here is an example: "The dog that is standing by the girl has spots." Explain how the clause that is provides more information about the noun dog it follows, but how it is unnecessary for understanding the sentence. Removing *that is* simplifies the sentence and makes it easier to understand.



# **Adjust Instruction/Intervene**

#### **Student Resources**

You may decide to use any or all of these monitoring sheets with your students:



Foundations I Streaks & Completion Chart in <u>Student & Teacher Resources</u> Explain to students that accuracy is the key to moving through the content in Fast ForWord. Because streaks record the number of correct answers in a row, this chart can help students self-monitor for accuracy. After they complete their exercises for each day, have students record their highest streaks and percent complete in each exercise, then challenge them to exceed those numbers tomorrow. Students will need one copy every 5 days.



Foundations I Completion Chart in <u>Student & Teacher Resources</u>

Students can self-monitor their progress on each exercise in Foundations I by filling in the bar representing their actual completed percentage to provide them with an overall view of how much content they've completed compared to how much they have left to do. Students will need one copy per component.