



Examining the Use of Scenario-based Assessment to Measure the English Language Proficiency of Young Learners

Alexis A. Lopez

Educational Testing Service

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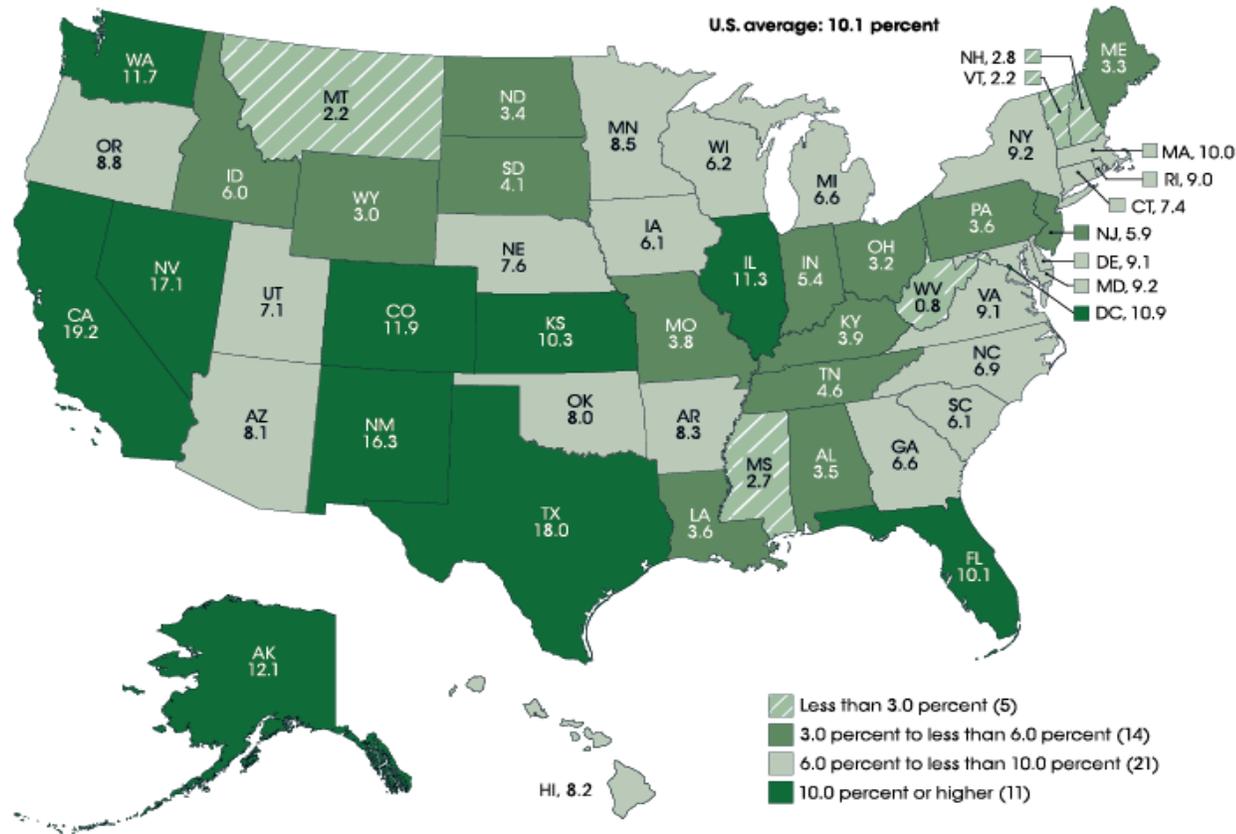
Overview of the Presentation

- Background information
- Scenario-based language assessment
- Project and study
- Sample scenario-based language tasks
- Lessons learned
- Implications for practice



Background Information

English Learners in the US



2000: 3.8 million (8.1 %) of ELs in K-12 schools

2017: 5 million (10.1 %) of ELs in K-12 schools

Growth of EL population projected to continue

Source: National Center for Educational Statistics (NCES).

Background of EL in the US

Country of origin

Length of time in
the US

Home language

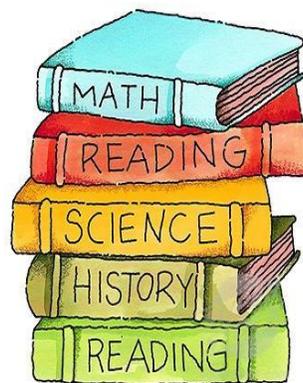


Educational
experiences

Literacy skills in L1
& L2

Time it takes to exit
EL status

Needs of ELs in the U.S. Context



Whole-class support



Small group support



Individualized support



After school programs



Assessment for English Learners

Current Assessments Practices

Initial ELP Assessment (Screenener)

- **Target test takers:** Incoming students; mostly kindergarteners and new students who first enroll in school
- **Uses:**
 - Identifying which students are English learners
 - Placing students
 - Determining which types of instructional supports are needed

Current Assessments Practices

Summative ELP Assessment

- Target test takers: EL students in grades K-12
- Uses:
 - Tracking annual progress of ELP attainment
 - Exiting students from EL status

Main Challenges of Current ELP Assessments

How to assess target test takers

- Mostly young students (e.g., kindergarteners/ages 5-6) and new immigrant students

How to better measure the language construct

- Measuring students' communicative language abilities in school settings

How to provide more meaningful information

- Providing accurate and more fine-grained information about students' English language abilities



Scenario-based Language Assessment

Task-based Language Assessment

- Elicitation and evaluation of language use (across all modalities) for expressing and interpreting meaning, within a well-defined communicative context (and audience), for a clear purpose, toward a valued goal or outcome. (Norris, 2016, p. 232)

Elicitation and
evaluation

Across all modalities

Clear purpose

Language use

Communicative
context/audience

Goal or outcome

Scenario-based Assessment

- Scenario-based assessment (SBA) is a fairly recent technology-based approach to assessment that addresses some of the limitations of traditional language assessment.
 - Tendency to measure discrete language skills
 - Difficulty measuring how people use language in real-world settings

Scenario-based assessment allows test takers to demonstrate their language proficiency competencies and processing abilities in a meaningful and goal-oriented context that simulates real world language use.

SBA in General Educational Assessment

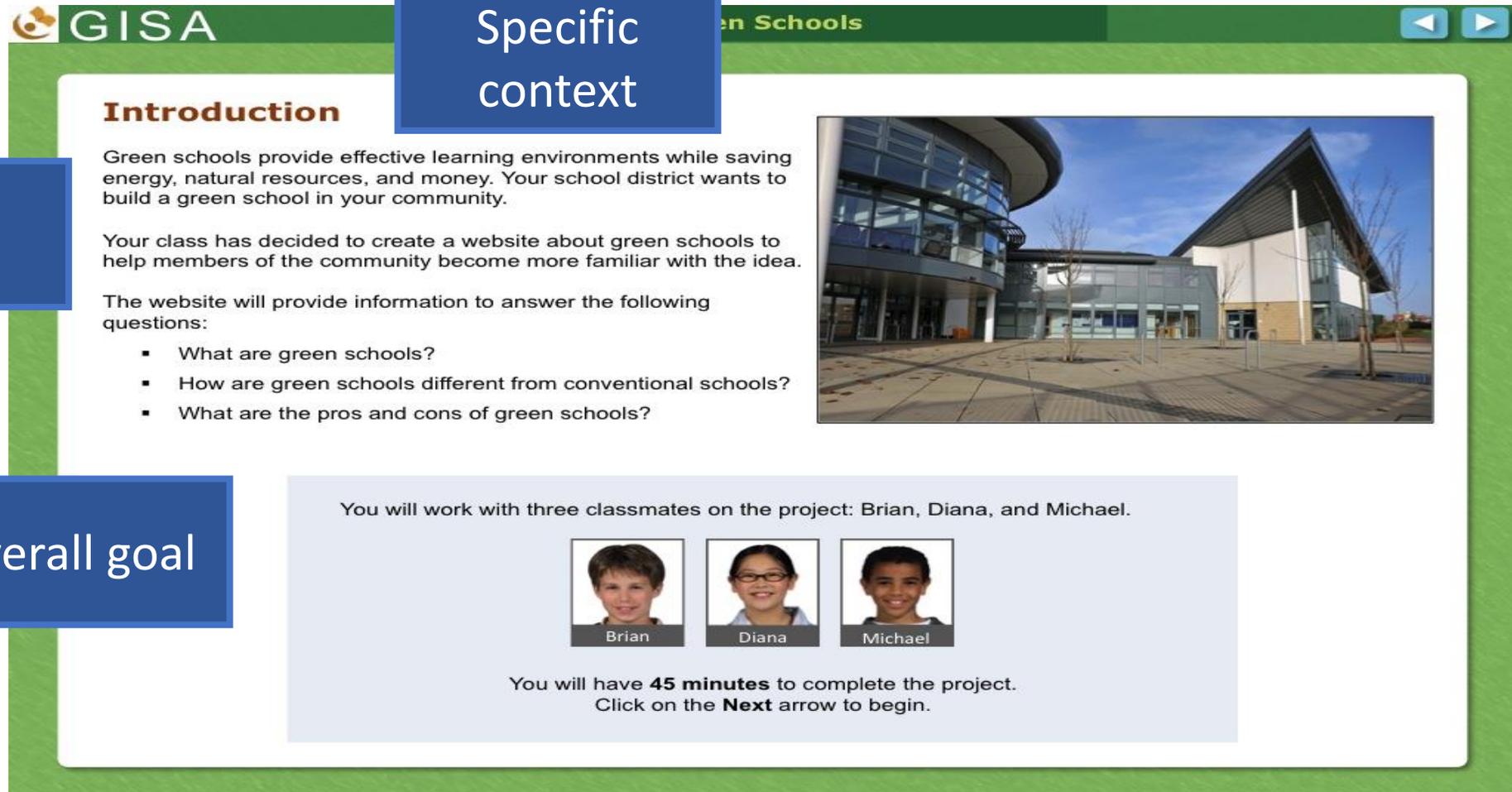
- SBA has recently been used in general educational assessment to measure disciplinary learning in math, English language arts and science (e.g., Bennett, 2010).
- SBA has also been used in L1 literacy contexts to measure reading comprehension and writing from different source materials (e.g., Sabatini & O'Reilly, 2013).

Global Integrated Scenario-based Assessment (GISA)

Clear purpose

Overall goal

Specific context



The screenshot shows the GISA assessment interface. At the top left is the GISA logo. The title bar reads "Green Schools". On the right side of the title bar are navigation arrows. The main content area is titled "Introduction" and contains the following text:

Green schools provide effective learning environments while saving energy, natural resources, and money. Your school district wants to build a green school in your community.

Your class has decided to create a website about green schools to help members of the community become more familiar with the idea.

The website will provide information to answer the following questions:

- What are green schools?
- How are green schools different from conventional schools?
- What are the pros and cons of green schools?

To the right of the text is a photograph of a modern school building with large glass windows and a curved facade.

Below the introduction is a light blue box containing the following text:

You will work with three classmates on the project: Brian, Diana, and Michael.

Below this text are three small portrait photos of the students: Brian, Diana, and Michael.

Below the photos is the following text:

You will have **45 minutes** to complete the project.
Click on the **Next** arrow to begin.

Global Integrated Scenario-based Assessment (GISA)

GISA Green Schools

What is a "Green School?"
A green school is a kind of school that is specifically designed to save energy, natural resources, and money. Historically, the focus of school design was on creating a building that would provide a good learning experience for students. For example, in the past, designers wanted to make sure that there were enough classrooms and desks in a school. They wanted to provide ways for students to get to their classes efficiently. Designers of green schools also make sure that their schools have these basic features, but they go a step beyond. They make sure that the schools contribute to a healthy environment by using sustainable and energy-efficient materials.

Green Schools and the Environment

- **Sustainable Materials**
Builders choose sustainable materials to build a green school. For example, they use wood from trees that grow faster than they are harvested. This helps to preserve endangered forests that have slow-growing trees.
- **Saving Energy and Water**
In some green schools, renewable energy sources, like solar panels, are used to operate the school. These schools have solar panels on the roof that capture the sun's rays and convert them into electricity for the school. Using solar energy helps reduce the amount of oil and natural gas that the school buys.

Using less energy is important in green schools. Lights with motion sensors are a common feature. These "smart lights" remain off until someone enters a room. Windows and skylights are used to provide plenty of natural light. Conserving water is also important to green schools. Green schools use water-efficient fixtures, such as low-flush toilets and automatic faucets. Many building designs include rain water tanks that store water for landscaping and gardening. By reducing the amount of electricity and water used, green schools can lower their utility bills. According to some estimates, the average energy savings per green school is \$100,000 per year.

Directions: Read Brian's summary of the section, "What is a Green School?" below. Then, write a summary of the section "Green Schools and the Environment," which is highlighted on the left. Click on the **Next** arrow when you are done.

Brian

I wrote a summary of the section "What is a Green School" to put on the website:

Green schools are schools that are designed to save on energy, resources, and money. Green schools have the basic features of all schools, like classrooms and desks, but the design focus is using environmentally-friendly materials.

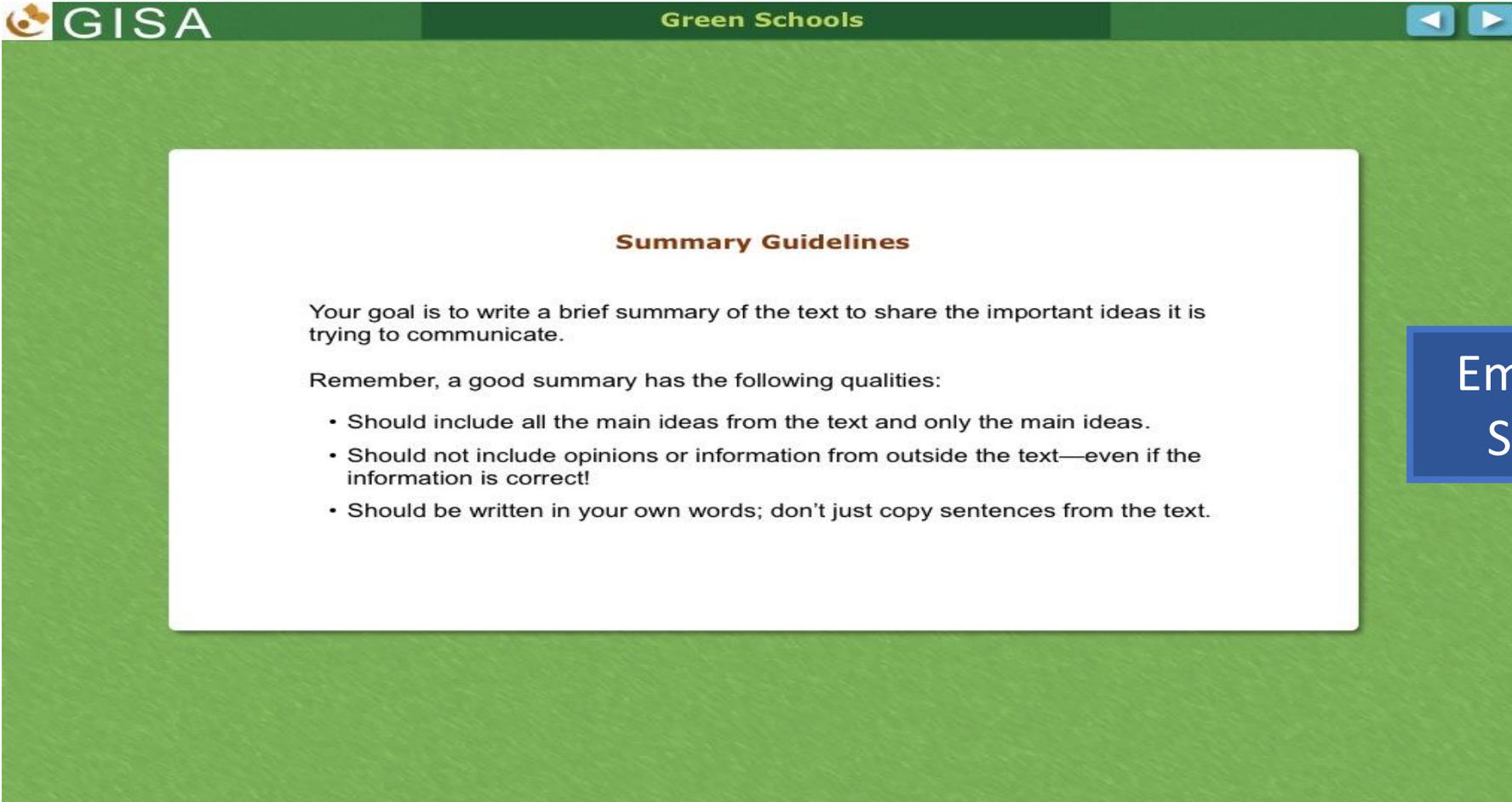
Before we read the rest of the article, summarize the section "Green Schools and the Environment." I've highlighted the paragraphs that you should summarize.

Type a 2-3 sentence summary of the section "Green Schools and the Environment" in the box below:

Related set of activities

Integration of skills

Global Integrated Scenario-based Assessment (GISA)



The screenshot shows a web interface for 'GISA Green Schools'. The header includes the GISA logo and the text 'Green Schools'. The main content area is a white box with a green border containing the following text:

Summary Guidelines

Your goal is to write a brief summary of the text to share the important ideas it is trying to communicate.

Remember, a good summary has the following qualities:

- Should include all the main ideas from the text and only the main ideas.
- Should not include opinions or information from outside the text—even if the information is correct!
- Should be written in your own words; don't just copy sentences from the text.

Embedded
Support

SBA in Language Assessment

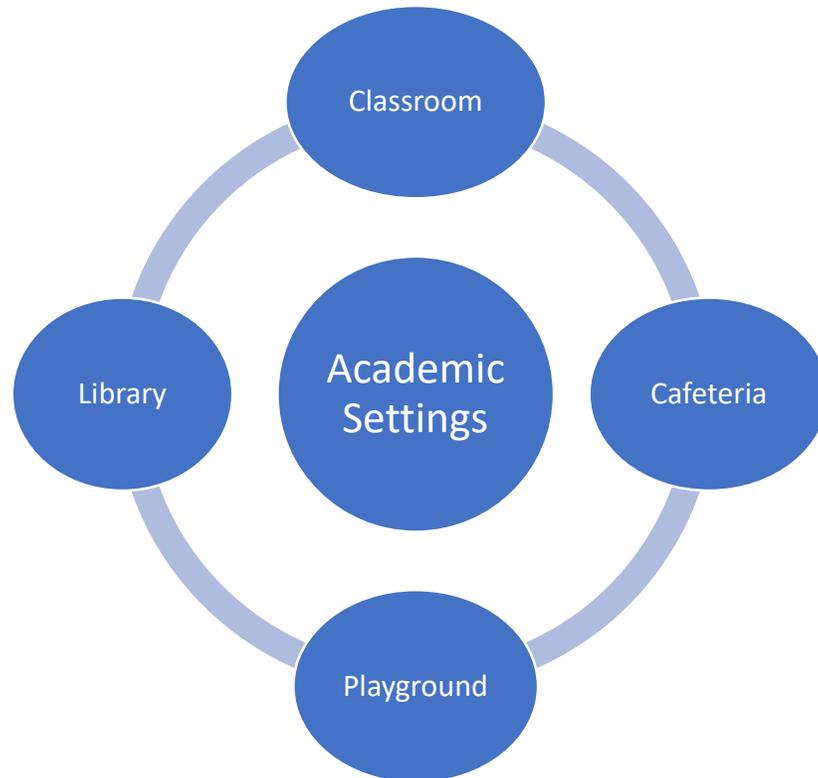
- SBA has recently been used to assess EL students' L2 ability (Purpura, 2016; Wolf et al., 2016).
- SBA has shown great potential for:
 - measuring expanded language constructs
 - allowing test takers to demonstrate their language proficiency competencies in a meaningful and goal-oriented context that simulates real-life language use
 - providing opportunities for test takers to learn to use language communicatively

SBA Distinctive Features

- Replicates real-world task situations in assessment tasks (e.g., retell a story)
- Contextualizes the assessment with a specific setting (e.g., school)
- Has an overarching goal (e.g., tell a student what the teacher said)
- Elicit learners' independent and integrated language skills (e.g., listening to a teacher talk about a topic in class and then discussing with other students)
- Includes some simulated characters (e.g., classmates, teachers)

Real-world Tasks for Young Learners

- Simulate authentic contexts in academic settings



Examples

- Read a story and discuss with partners
- Write a short story for the school newspaper
- Write an email to the principal about the school announcements
- Get a book about dinosaurs from the library
- Create a poster for a school party
- Participate in a debate to choose a class field trip



Our Project

Overall Goal of the Project

- The goal of this project was to improve assessment tasks for young English learners that would allow us to measure how they apply their language knowledge, skills, and abilities (KSAs) in meaningful academic communicative situations.

Specific Goals for the Project

- Increase student engagement in assessment tasks.
- Improve the accuracy of measuring students' communicative language ability in school contexts.
- Make assessment-based interpretations that can be generalized to language use situations beyond the assessment itself.
- Provide useful information for teachers and students.

**One approach: Technology-enhanced
scenario-based assessment tasks**

Scenario-based Assessment Tasks for Young Learners

- Develop a series of related items/tasks within an enriched context.
- Give students more structure and guidance (e.g., clear purpose for completing the tasks).
- Allow students to engage multiple language skills to complete the tasks.
- Provide feedback and assistance for those who need it.
- Make the tasks more engaging for young learners.
 - Relatively brief
 - Content and topics likely to be familiar to young learners
 - Ample visual stimuli such as pictures, illustrations, videos or animations

Main Research Areas

- Investigating how scenario-based assessment can be used to elicit more information about young learners' language knowledge, skills and abilities.
- Examining the use embedded supports to help students complete tasks in scenario-based assessment.
- Investigating how to use scenario-based assessment to enhance teaching.
- Examining the perceptions that teachers have of the scenarios and use of embedded scaffolding.

Study Design

- Qualitative
 - One-on-one cognitive interviews with students
 - Focus group interviews with teachers
- Instruments
 - Various scenario-based tasks on iPads
 - Student observation and interview protocols
 - Student background questionnaire
 - Teacher focus group interview protocol

Participants

Students in Grades K-5 (age: 5 – 11)

Grade	EL Students
K	28
1	15
2	6
3	5
4	6
5	5
Total	65

Grades K-5 ESL Teachers

Grade	Teachers
K	3
1	3
2	4
3	3
4	3
5	2
TOTAL	18

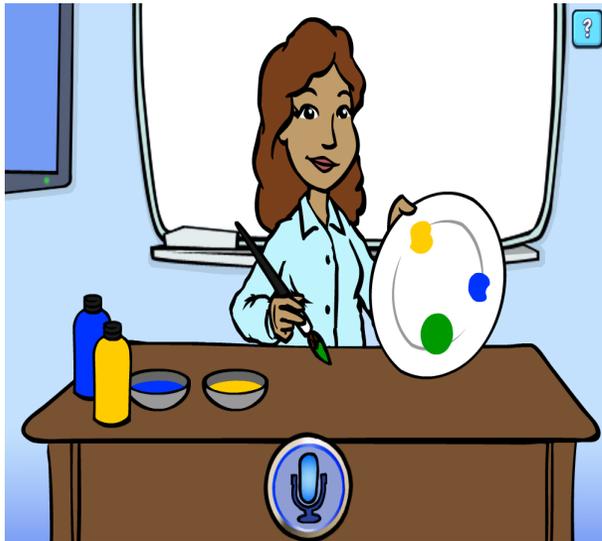
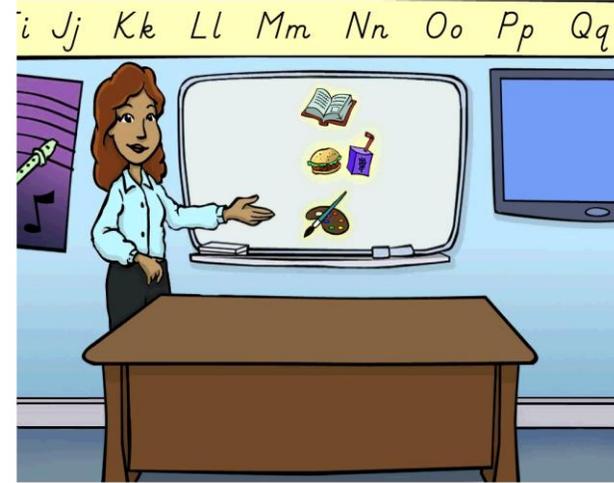


Sample Scenario-based Tasks and Lessons Learned

Overview of This Section

- We developed a series of scenario-based tasks:
 - Kindergarten: Mixing Paint
 - Eliciting more information from test-takers
 - Grades 3-5: Lemon Juice
 - Using supports (scaffolding) in SBA
 - Grades K-1: Reading Time
 - Enhancing teaching through the use of SBA
- Teachers' perceptions of scenarios and scaffolding
- Implications for SBA design and use

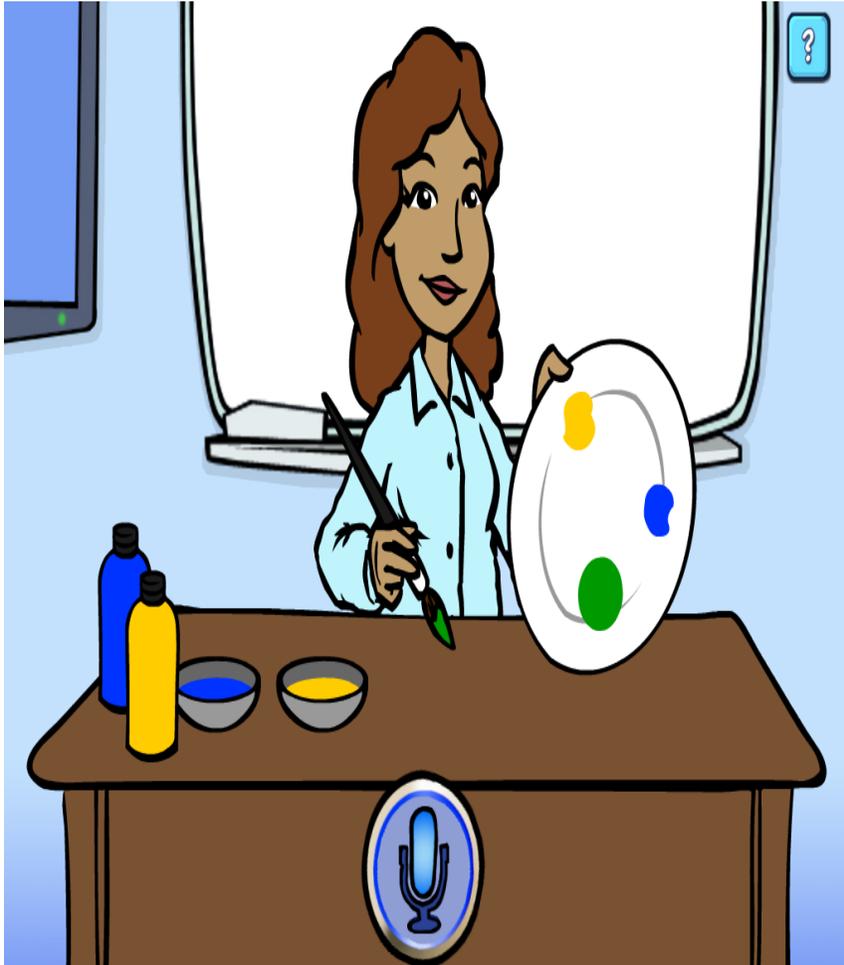
School Day Scenario





Mixing Paint

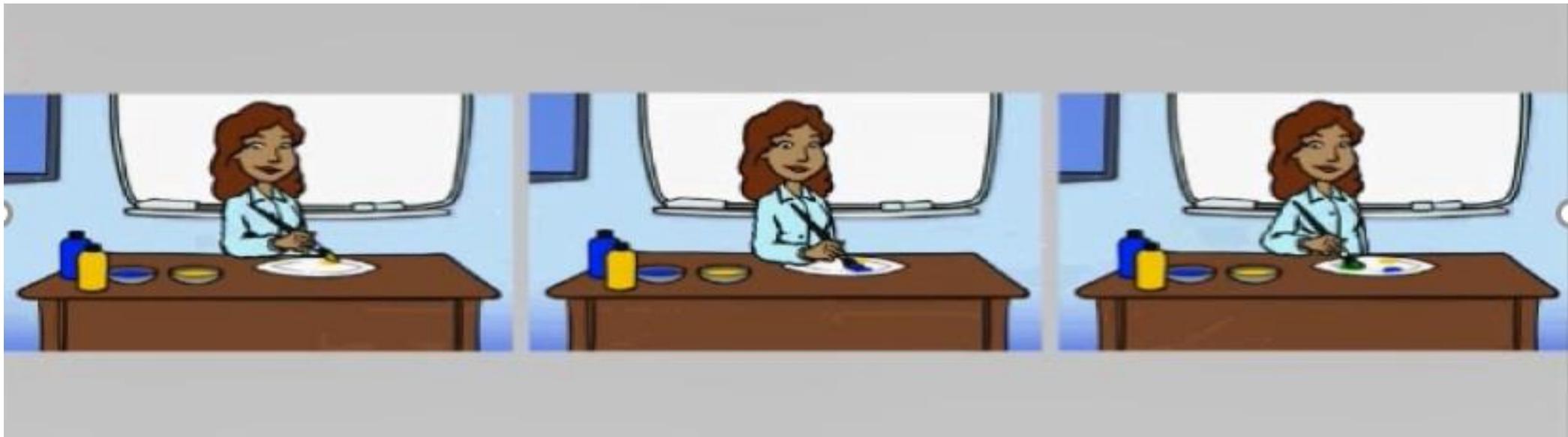
Mixing Paint



- **Grade:** kindergarten
- **Context:** art class, teacher showing what happens when she mixes two colors together
- **Overall goal:** retell and describe what a teacher did in class
- **Integrated skills:** listening and speaking
- **Support:**
 - Guidelines
 - Illustrations
 - Step-by-step questions
 - Second retell

First Retell

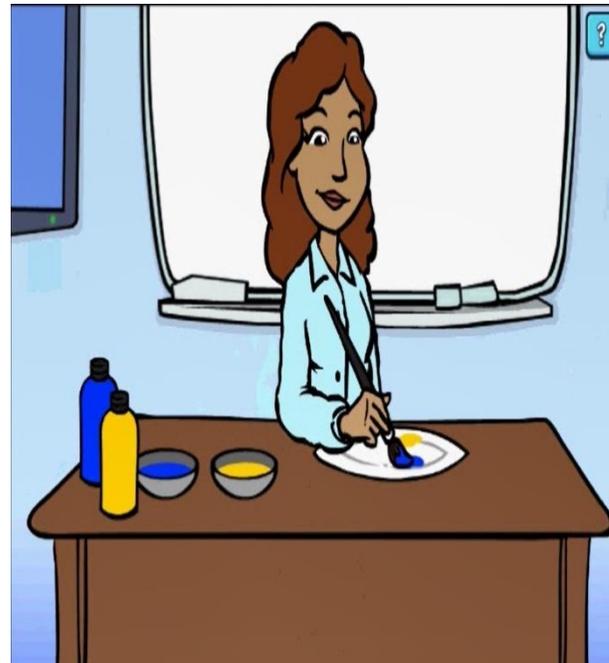
“Look at the pictures of what the teacher did in class today. Start with the first picture. Tell the class what the teacher did.”



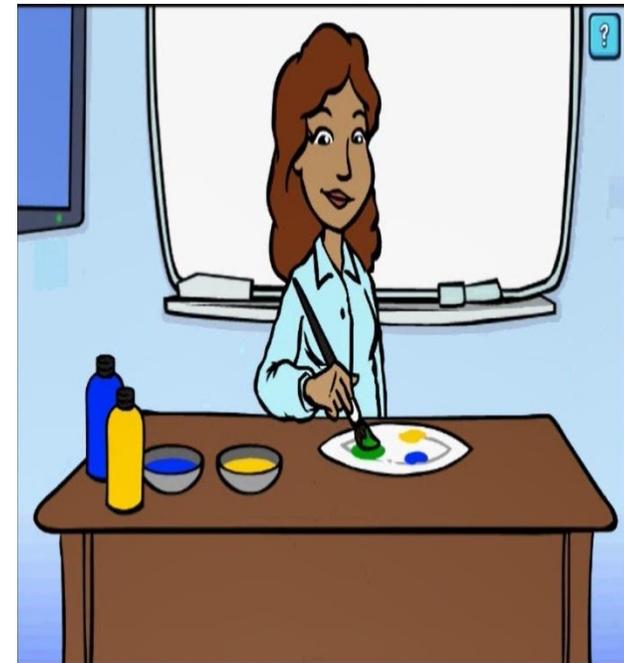
Scaffolding Questions



“Watch carefully. What did the teacher just do?”



“Watch carefully. What did the teacher just do?”

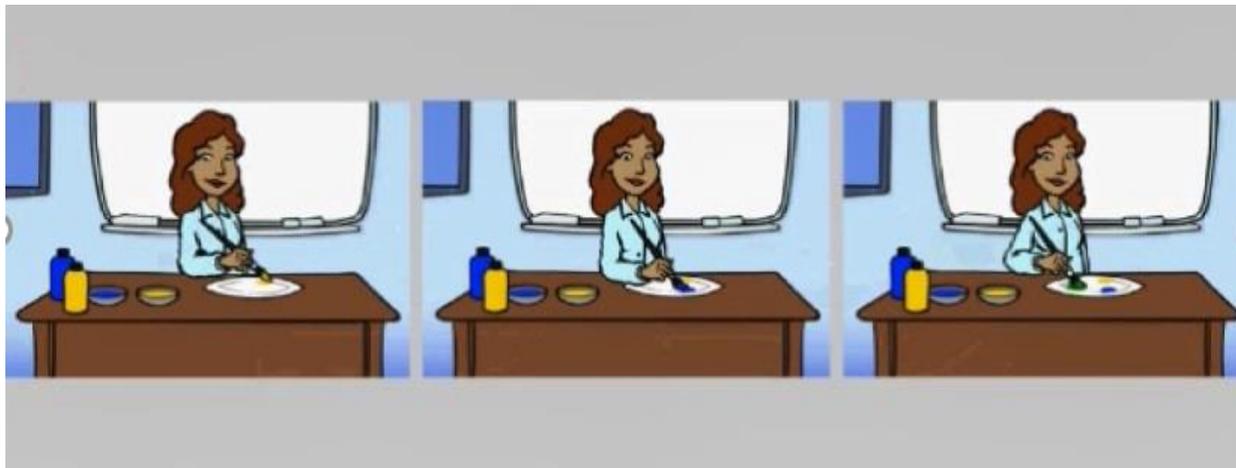


“Watch carefully. What did the teacher just do?”

Second Retell



“Oh, I was late and missed class today. Can you tell me what the teacher did?”





Eliciting More Information About Student's Language Knowledge, Skills and Abilities

Mixing Paint

Prompt	Response
First retell: “Tell me everything the teacher did.”	Oh, he was playing with <u>some colors</u> . And we <u>mix it up with green</u> . And that’s it.

Mixing Paint

Prompt	Response
First retell: “Tell me everything the teacher did.”	Oh, he was playing with <u>some colors</u> . And we <u>mix it up with green</u> . And that’s it.
Scaffolding questions: S1: “What did the teacher just do?” S2: “What did the teacher just do?” S3: “What did the teacher just do?”	S1: Pick...put... <u>yellow paint</u> on table. S2: Put the <u>blue on a plate</u> . S3: <u>Mix the two different colors and make green.</u>

Mixing Paint

Prompt	Response
First retell: “Tell me everything the teacher did.”	Oh, he was playing with some colors. And we mix it up with green. And that’s it.
Scaffolding questions: S1: “What did the teacher just do?” S2: “What did the teacher just do?” S3: “What did the teacher just do?”	S1: Pick...put... <u>yellow paint</u> on table. S2: Put the <u>blue</u> on a plate. S3: <u>Mix the two different colors and make green.</u>
Second retell: “I was late and missed class. Can you tell me what the teacher did?”	The teacher did the <u>yellow paint</u> . Put it on a plate. And <u>blue</u> put it on a plate. <u>And mix both colors and make green.</u> And that’s it.

Summary

SBA can be used to elicit more information about students' language knowledge, skills, and abilities

```
graph TD; A[SBA can be used to elicit more information about students' language knowledge, skills, and abilities] --> B[More data points for each student]; A --> C[Multiple opportunities for students to demonstrate their language abilities];
```

More data points for each student

Multiple opportunities for students to demonstrate their language abilities



Lemon Juice

Lemon Juice



- Grades: 3-5
- Context: demonstration in a science classroom
- Overall goal: retell and describe what the teacher did
- Integrated skills: listening and speaking
- Support:
 - Labels
 - Step-by-step questions
 - Second retell
 - Keywords
 - Illustrations

First Retell

“Listen and watch carefully. After I do the experiment, you will tell me about it.”

“Can you tell me about each step in the experiment? Look at the pictures of what the teacher did in class today. Start with the first picture. Tell the class what the teacher did?”



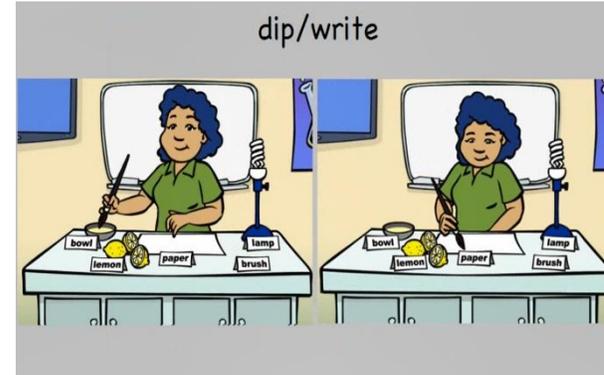
Scaffolding Questions



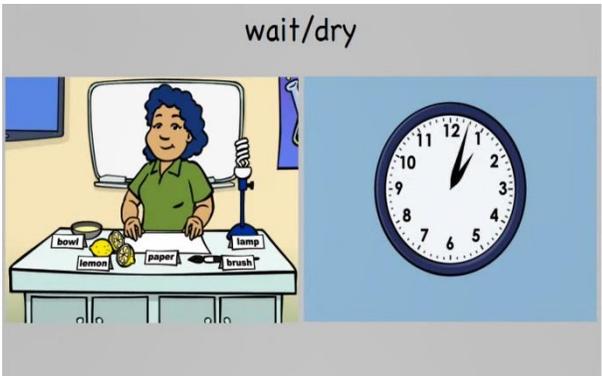
“What do I need?”



“What do I do first?”



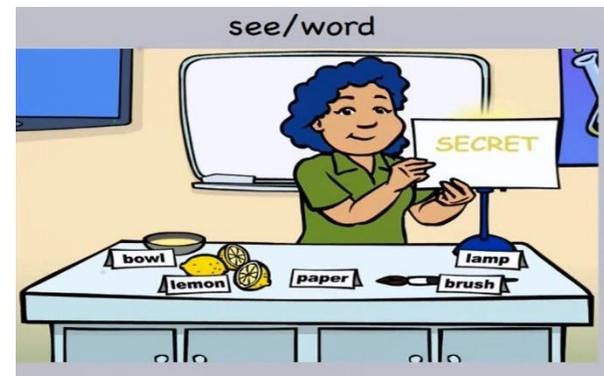
“What do I do next?”



“What happens next?”



“What do I do then?”



“Then, what happens?”

Second Retell



“Oh, I was late and missed class today. Can you tell me what the teacher did?”





Using Supports (Scaffolding) to Help Students Complete the Task

Lemon Juice

Prompt	Response
First retell: “Tell me everything the teacher did.”	With the brush, she used to make the, the writing on the paper.

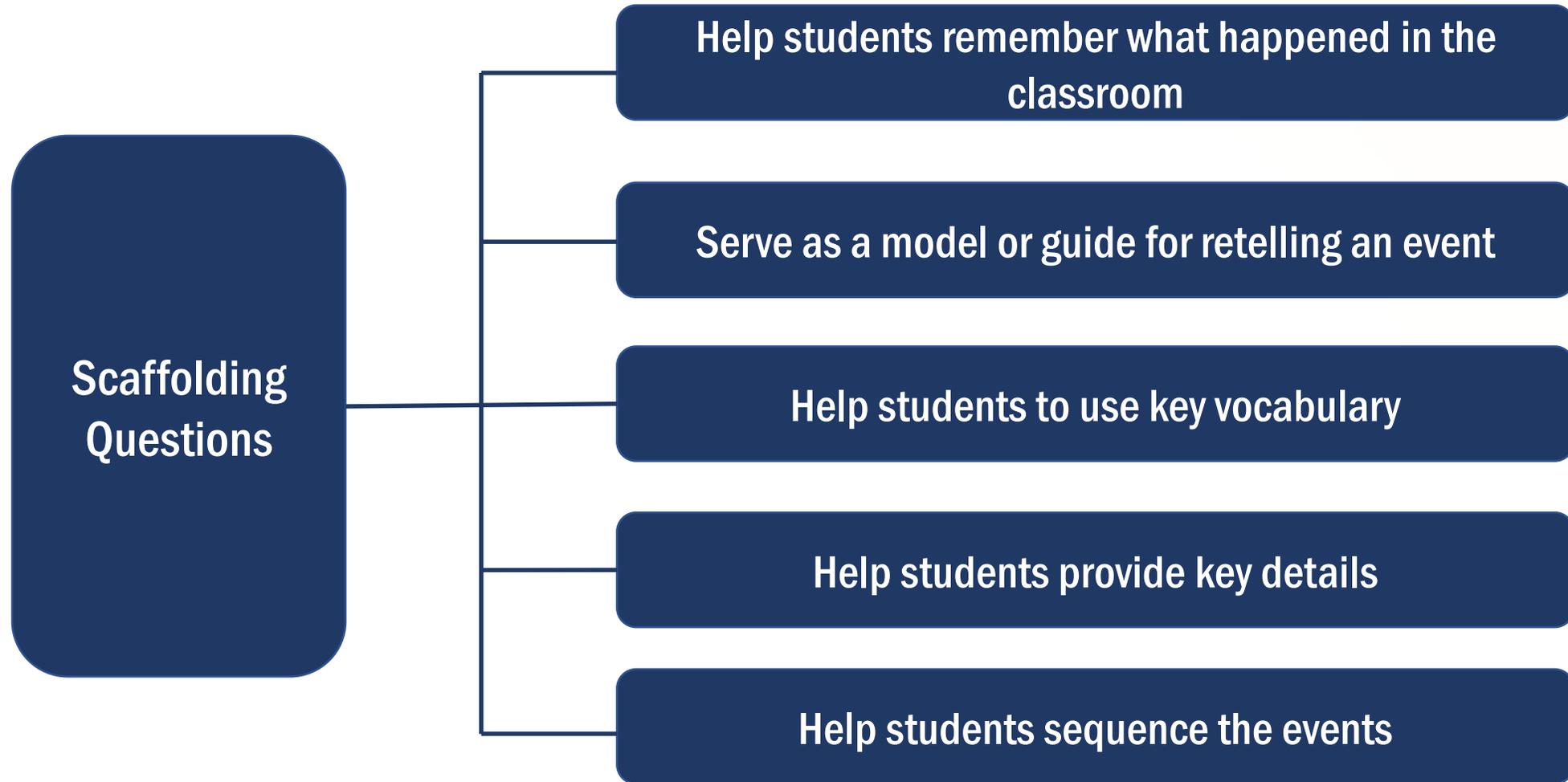
Retelling an Event

Prompt	Response
First retell: “Tell me everything the teacher did.”	With the brush, she used to make the, the writing on the paper.
Scaffolding questions: S1: “What do I need?” S2: “What do I do first?” S3: “What do I do next?” S4: “What happens then?” S5: “What do I do then?” S6: “Then what happens?”	S1: <u>Bowl, lemon, paper, brush and lamp.</u> S2: You <u>squeeze the juice.</u> S3: <u>Dip, write.</u> S4: Um, he <u>waits for the paper to dry.</u> S5: <u>In front of the light.</u> S6: Then in front of the light <u>see what she wrote on the paper.</u>

Mixing Paint

Prompt	Response
First retell: “Tell me everything the teacher did.”	With the brush, she used to make the, the writing on the paper.
Scaffolding questions: S1: “What do I need?” S2: “What do I do first?” S3: “What do I do next?” S4: “What happens then?” S5: “What do I do then?” S6: “Then what happens?”	S1: Bowl, lemon, paper, brush and lamp. S2: You squeeze the juice. S3: Dip, write. S4: Um, he waits for the paper to dry. S5: In front of the light. S6: Then in front of the light see what she wrote on the paper.
Second retell: “I was late and missed class. Can you tell me what the teacher did?”	<u>Squeeze the lemon in the bowl</u> and then she got, she picked the brush and <u>put it in the lemon juice</u> and then write in the paper <u>and then put on the light</u> and <u>it showed</u> the, the word.

Summary





Reading Time

Reading Time



- **Grades:** K-2
- **Context:** reading time in class
- **Goal:** retell as story that was read aloud.
- **Integrated skills:** listening and speaking
- **Support:**
 - Illustrations
 - Step-by-step questions

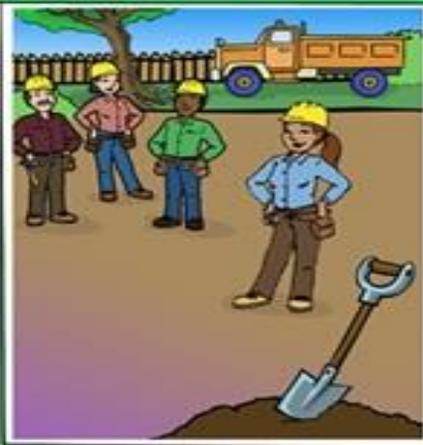
Story Retell

1. A short story is read aloud with a series of still pictures
2. Students retell the story
3. Students answer a series of step-by-step questions

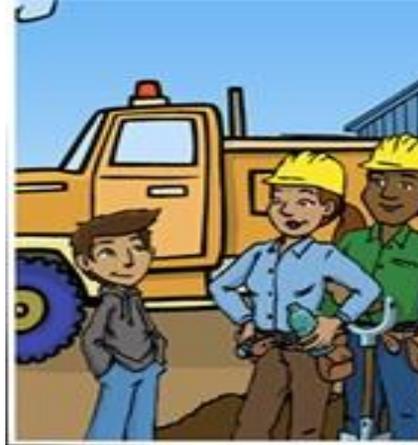


“Now, I want you to tell the story. Look at the four pictures from the story. Start with the first picture and tell me what happened in every picture.”

Scaffolding Questions



“Look at the first picture. What do you see?”



“Look at the second picture. What is Luis doing?”



“Look at the third picture. What is Luis doing now?”



“Look at the fourth picture. What is happening here?”



Potential of SBA to Enhance Teaching

Reading Time Retell

Prompt	Response
Retell	[No response]



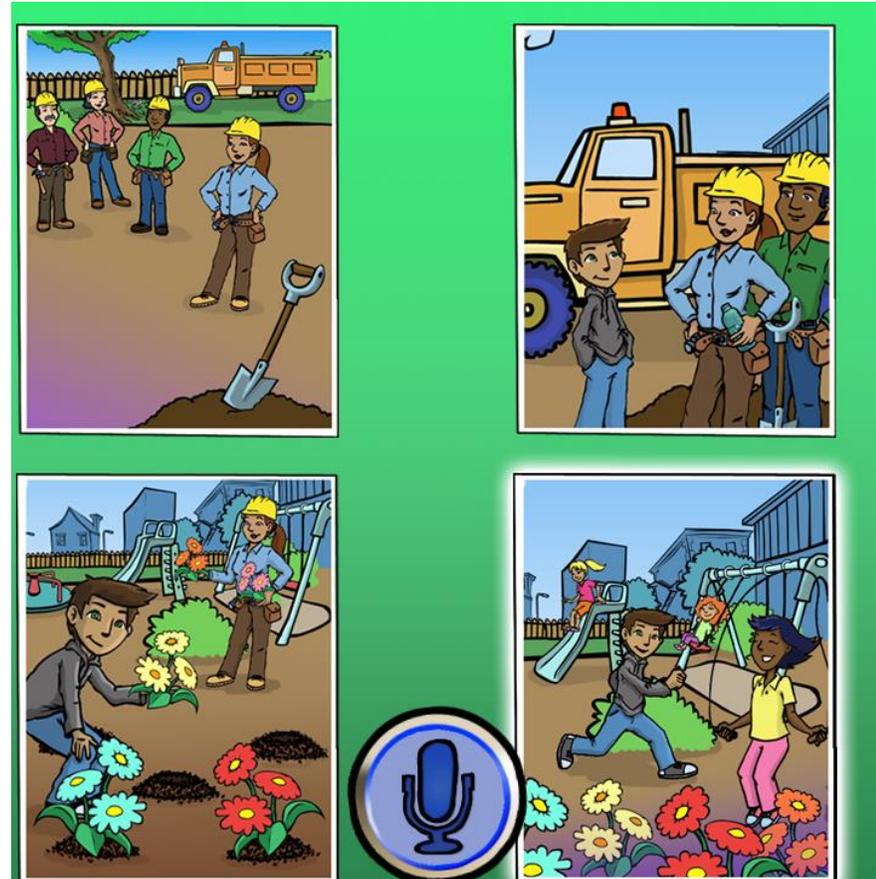
Scaffolding Question 1

Prompt	Response
Retell	[No response]
SQ1: "Look at the first picture. What do you see?"	A truck.



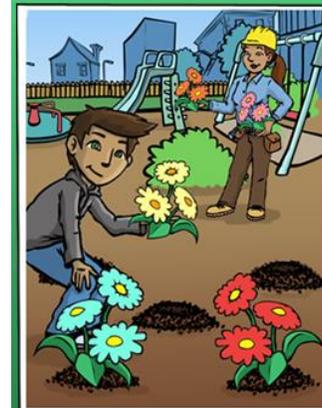
Scaffolding Question 2

Prompt	Response
Retell	[No response]
S1: "Look at the first picture. What do you see?"	A truck.
S2: "Look at the second picture. What is Luis doing?"	Talking and a boy.



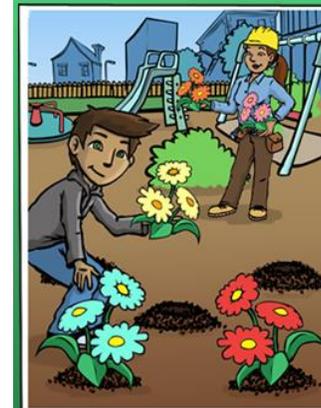
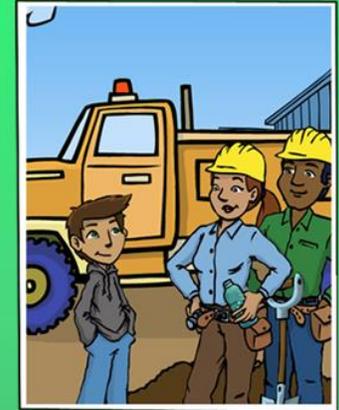
Reading Time

Prompt	Response
Retell	[No response]
S1: "Look at the first picture. What do you see?"	A truck.
S2: "Look at the second picture. What is Luis doing?"	Talking and a boy.
S3: "Look at the third picture. What is Luis doing now?"	Planting the flower.



Reading Time

Prompt	Response
Retell	[No response]
S1: "Look at the first picture. What do you see?"	A truck.
S2: "Look at the second picture. What is Luis doing?"	Talking and a boy.
S3: "Look at the third picture. What is Luis doing now?"	Planting the flower.
S4: "Look at the fourth picture. What is happening here?"	Now they're playing.



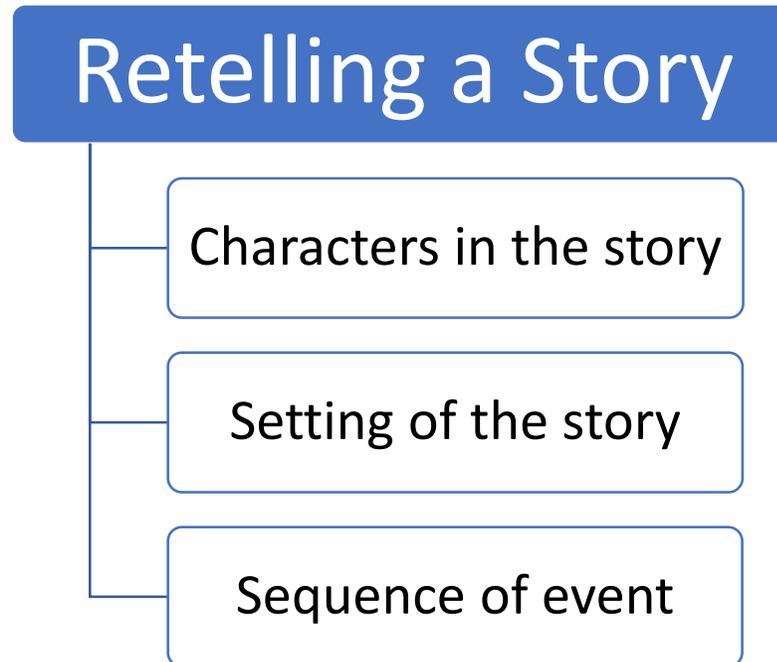
Reading Time

Prompt	Response
Retell	[No response]
S1: "Look at the first picture. What do you see?"	A truck.
S2: "Look at the second picture. What is Luis doing?"	Talking and a boy.
S3: "Look at the third picture. What is Luis doing now?"	Planting the flower.
S4: "Look at the fourth picture. What is happening here?"	Now they're playing.



Summary

- To enhance learning, scenario-based assessment should be designed to elicit the kind of information needed to perform the specific task(s).





Teachers' Perceptions

Scenarios

- The settings of the scenarios were engaging and relevant to their students' experiences in the classroom.
- The topic of the scenarios were familiar to the students; students can relate to these topics.
- The tasks in the scenarios were similar to the ones their students usually engage in class.
- The scenarios create a more authentic, meaningful, and purposeful context for their students to use their language skills.

Scaffolding

- The scaffolding types are appropriate and similar to strategies they use in class.
 - E.g., breaking tasks into smaller steps (like in Mixing Paint and Lemon Juice)
- In general, teachers think that the scaffolding questions are very useful.
 - E.g., provide more information, give another opportunity to respond
- Suggested offering other types of support:
 - E.g., sentence starters, modeling responses

Scaffolding

Second Retell

A third grade teacher liked the part of the Lemon Juice scenario where a student arrives late to class and asks the test-taker for a summary of what she missed.

“This is an example of a more friendly way to assess the student’s oral language. This scenario would be less intimidating for my students.”
(simulation of an interaction with another student)



Implications

Assessment Design

- Scenarios offer a great opportunity to develop thematically-related, meaningful and goal-oriented tasks within contexts that simulate how students use language in school.
- Important to sequence tasks in a way that provides young learners multiple opportunities to demonstrate what they know and can do in English.
- Task features should include the following:
 - Scaffolding
 - Feedback to teachers and students

Assessment Use

- Provide relevant and timely feedback to students:
 - to promote and support future learning, so students can self-manage skills for learning
 - to allow them to engage with it and act upon it to become independent learners
- Provide relevant and timely feedback to teachers:
 - to understand the type of support their students need
 - to help their students monitor their progress towards meeting the intended learning goals

Acknowledgements

Project team members:

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For more information: Alexis A. Lopez, alopez@ets.org





Thank you!