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# An Early Childhood Expository Comprehension Measure: A Look At Validity

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An Early Childhood Expository Comprehension Measure: A Look at Validity

MaryBeth Fillerup Robertson

A thesis submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of  
Master of Science

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## ABSTRACT

### An Early Childhood Expository Comprehension Measure: A Look at Validity

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Many have argued for more informational text to be incorporated into the curriculum, even in the earliest grades. However, it has traditionally been thought that narrative text should precede informational text when introducing children to literacy. Still several studies have demonstrated that preschool children are capable of learning from these texts. Because informational texts are being introduced even in the earliest grades, preschool teachers are in need of ways to assess their students' ability to handle early forms of informational texts. The Early Expository Text Comprehension Assessment (EECA) was developed to help teachers understand the comprehension abilities of their preschool children across several informational text structures. As part of a larger study, the third iteration of this assessment measure, called the EECA-R3, was examined for concurrent validity with the Test of Story Comprehension (TSC), a subtest of the Narrative Language Measure (NLM). Data came from 108 preschool children between the ages of four and five who were attending one of six title one preschools or one of four private preschool classrooms. Correlations that were run between the TSC and the EECA-R3 to determine concurrent validity were positive and significant, suggesting that the EECA-R3 is valid.

Key Words: comprehension assessment, expository text, informational text, preschool

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## TABLE OF CONTENTS

TITLE PAGE .....	i
ABSTRACT.....	ii
ACKNOWLEDGEMENTS.....	iii
TABLE OF CONTENTS.....	iv
LIST OF TABLES.....	vii
LIST OF APPENDICES.....	viii
DESCRIPTION OF THESIS STRUCTURE.....	ix
CHAPTER 1: Introduction .....	1
CHAPTER 2: Review of Literature.....	3
Benefits from Addressing Informational Text.....	3
Enhance background knowledge and vocabulary.....	3
Stimulate interactions that support academic language skills.....	4
Aid access to content through use of text structures and features. ....	5
Stimulate interest and engagement in reading. ....	5
Meet standards for educational performance. ....	6
Nature of Informational Text Demands.....	7
Vocabulary and content. ....	7
Text structures.....	8
Signal devices. ....	8
Text features. ....	8
Assessment of Informational Text Comprehension.....	9
CHAPTER 3: Method.....	11

Participants.....	11
Measures .....	11
EECA-R3. ....	11
Identifying the purpose of a text. ....	12
Identifying descriptive passages of a text. ....	12
Identifying elements of a compare and contrast passage of a text.....	13
Identifying elements of a problem/solution passage of text. ....	13
Identifying elements of a sequence passage of a text. ....	13
Test of Story Comprehension (TSC). ....	14
Procedures.....	14
Examiner training.....	14
Administration. ....	15
Inter-rater reliability.....	16
Data Analysis .....	17
CHAPTER 4: Results .....	18
Descriptive Statistics.....	18
Concurrent Validity of EECA-R3.....	18
CHAPTER 5: Discussion.....	20
Significance.....	20
Limitations .....	21
Nature of the population. ....	21
Language abilities of child participants. ....	21
Selection of the comparison measure. ....	21

Future Study Recommendations .....	22
Children’s ages.....	22
Test tasks.....	22
Comparison measure.....	22
References .....	24
APPENDIX A: List of Changes in the Protocol.....	30
APPENDIX B: List of items in EECA .....	31
APPENDIX C: EECA Version A Student Recording Sheet .....	33
APPENDIX D: EECA Version B Student Recording Sheet .....	41
APPENDIX E: EECA Protocol Form A.....	49
APPENDIX F: EECA Protocol Form B .....	51
APPENDIX G: Scoring Guide Version A .....	54
APPENDIX H: Scoring Guide Version B .....	64

## LIST OF TABLES

Table 1	Possible Sequences and Combinations of Test Versions and Administrators.....	16
Table 2	Descriptive Statistics of Test Results for TSC and EECA-R3 .....	18
Table 3	Correlation Matrix Table of TSC, EECA-A, EECA-B and EECA-(A+B) .....	19



## LIST OF APPENDICES

APPENDIX A: List of Changes in the Protocol .....	30
APPENDIX B: List of Items in EECA .....	31
APPENDIX C: EECA Version A Student Recording Sheet .....	33
APPENDIX D: EECA Version B Student Recording Sheet .....	41
APPENDIX E: EECA Protocol Form A .....	49
APPENDIX F: EECA Protocol Form B .....	51
APPENDIX G: Scoring Guide Version A .....	54
APPENDIX H: Scoring Guide Version B .....	64

## DESCRIPTION OF THESIS STRUCTURE

This thesis, *An Early Childhood Expository Comprehension Measure:*

*A Look at Validity*, is written in a standard thesis format with a typical thesis structure. The literature review follows the introduction. Appendix A contains a list of the changes made from the previous iterations of the EECA. Appendix B contains a list of items that were tested in the EECA-R3. Appendices C and D contain the original student recording sheets for Forms A and B of the EECA-R3. These recording sheets were modified. Changed versions of the scoring sheets, EECA Protocol Form A (or Form B), can be found in Appendices E and F, respectively. Appendices G and H contain the grading protocol for each form of the EECA-R3 (Form A and Form B, respectively).

## **CHAPTER 1**

### **Introduction**

Historically children in early education programs have received limited exposure to informational text. Teaching comprehension skills has focused mainly on narrative text. However, in recent years studies have shown that preschool children benefit from interactions with informational text (Maduram, 2000; Tower, 2002).

The fact that informational text can be effectively taught to young children is important, as there is a growing concern that American children are not keeping up with the demands of a global technology-based workforce. Since competence in literacy is viewed as a key factor in achieving societal economic success (Zygouris-Coe, 2012), teaching informational text to young children is a way of ensuring they have the foundational skills needed to ultimately succeed academically (Shanahan & Shanahan, 2014). American children rank high in literacy globally until the fourth grade, when they experience what some educators call the “fourth grade slump” (Organisation for Economic Co-Operation and Development, 2006, 2008). Many argue that instead of teaching children to read to learn, teachers emphasize teaching children to learn to read, which may cause them to lose motivation when the need to read demanding informational text increases (Otto & White, 1982; Westby, 1985).

Several national and state educational frameworks have addressed the trend of children falling behind in science and technology by including the teaching of informational text in younger grades, even preschool and kindergarten (Greene, 2012; Neuman & Roskos, 2012). Recommendations from the Common Core State Standards Initiative (CCSS), suggest the use of at least 50% expository texts in science, social studies, and the arts. (Greene, 2012; National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010; Neuman & Roskos, 2012).

Because comprehension of informational text is of national concern, there is a need to assess young children's ability to handle such texts. In recent years some assessments for primary grade students in informational text have become available, but assessments for preschool children are still lacking. Although standardized assessments are problematic for children of preschool age, a structured and descriptive assessment would give teachers and administrators information needed to create instructional programs for preschool children and determine relevance of their programming efforts. The purpose of this study was to determine the validity of an early assessment of informational text comprehension, the Early Expository Comprehension Assessment- Revision 3 (EECA-R3).

## CHAPTER 2

### Review of Literature

Teachers in early childhood classrooms need to appreciate the benefits of introducing children to informational text and the demands related to such text that will impact assessment and instruction. They also need to know what assessment options are available for determining and monitoring children's informational text comprehension.

#### **Benefits from Addressing Informational Text**

Children can benefit from exposure to informational text early in their education in a number of ways. Informational texts serve to (a) enhance content knowledge and vocabulary, (b) facilitate language-rich interactions and academic language skills, (c) aid access to content through use of text structures and features, (d) motivate interest in reading, and (e) help children to keep pace with educational demands.

**Enhance background knowledge and vocabulary.** Building background knowledge and helping children connect ideas are important aspects of literacy development (Neuman, 2001; Yopp & Yopp, 2012). Informational text can draw upon background knowledge in ways that narrative texts do not (Caswell & Duke, 1998). In separate case studies, two boys with different impaired reading profiles benefited from the use of informational text as an intervention strategy (Caswell & Duke, 1998). While reading informational text the boys in these studies were able to use background knowledge to facilitate the acquisition of new content knowledge, which expanded their reading interests (Caswell & Duke, 1998; Mantzicopoulos & Patrick, 2010). One boy commented, "I like to read about what I know" (Caswell & Duke, 1998, p. 115).

While listening to informational text, preschool children can develop and understand relationships between new words and their connected concepts (Beckage, Smith, & Hills, 2011). Building these relationships makes learning vocabulary meaningful and interactive (Harris,

Golinkoff, & Hirsh-Pasek, 2011). Repeated exposure to technical vocabulary related to a subject increases a child's ability to hold on to the meaning of words (Gardner, 2004).

**Stimulate interactions that support academic language skills.** The inclusion of informational text at the preschool level sets the stage for language-rich interactions between children and adults around informational content (McGinty & Justice, 2010). Informational texts provide opportunities for teachers to engage children in conversations that use abstract language and formal oral language skills. Such interactions are essential components of quality preschool programs (McGinty & Justice, 2010).

During parent-child read aloud discussions of an informational text, preschool children experience a different kind of interaction with their parents than they do when having read aloud discussions with a narrative text (Mason, Peterman, Powell, & Kerr, 1989; Price, van Kleeck, & Huberty, 2009; Smolkin & Donovan, 2002). Although the results of studies dealing with the nature of interactions around narrative versus informational texts come from conversations with parents and their preschool children, similar results might be found when investigating preschoolers and their teachers.

Narrative-based interactions support sharing ideas, making predictions and inferences, stating options, referring to the sequence of events, and requesting displays of comprehension. In contrast, information-based text interactions support sharing examples and explanations, labeling routines, interpreting facts literally, and making text-to-life connections. Conversations with informational text stimulate discussion about content knowledge and vocabulary elaboration (Neuman, 2014). While engaging in these cognitively demanding sequences, children will use several strategies within an extended sequence of talk. Children in conversation about informational text also initiate the conversation more often, interact longer, and make more utterances (Price & Hollingsworth, 2010; Price, van Kleeck, & Huberty, 2009).

**Aid access to content through use of text structures and features.** The preparation for academic experience is facilitated as children begin to recognize and become familiar with informational text structures and text features (Englert & Thomas, 1987; Meyer, 1975; Meyer & Freedle, 1984). Even in preschool settings children can access information in the text by drawing upon headings, labels, charts, and pictures.

The structure of informational text is different from that of narrative text. When presenting informational text in a read aloud or other shared format with preschool children, teachers have the opportunity to explain text structures such as description, compare/contrast, problem/solution, sequence, and cause/effect to their students (Hall & Sabey, 2007; Read, Reutzel, & Fawson, 2008). Learning to recognize and understand these structures can lessen the difficulty children experience when they are expected to know them in elementary school (Pentimonti, Zucker, Justice, & Kaderavek, 2010; Sanacore & Palumbo, 2009). Using think aloud discussions while reading well-structured texts will help children gain understanding of the structures and make gains in the comprehension process (Massey 2014).

Not only do informational texts have identifiable structures that help children process information, they also have identifiable print and graphic features which convey information, such as headings, captions, photographs, labels, and charts. Preschool teachers can point out and scaffold the use of these features to expand comprehension.

**Stimulate interest and engagement in reading.** Many children are naturally interested in science or learning about the natural world. For this reason informational text can act as a catalyst to motivate reading (Caswell & Duke, 1998). Children who may not be drawn to stories might engage with a book to learn about such things as bugs, machines, or ships. A kindergarten study of boys' and girls' reading preferences revealed a strong interest in informational text as demonstrated by their choice of library books, choice of books to talk about in class, and written

responses when probed for book preferences (Correia, 2011). For some children informational texts provide the purpose needed to engage in literacy (Caswell & Duke, 1998). Even first graders have a basic sense of what expository (nonfiction) text is (Duthie, 1994; Pappas, 1991, 1993) and how it can relate to their interests and needs. Senn (2012) studied how both boys and girls do better and are more engaged when their learning has a purpose. Boys' interest, especially at an early age and development, seems to closely align with reading informational text and learning about the world around them.

**Meet standards for educational performance.** As children get older they are expected to know how to learn from informational texts and take their skills into future jobs (Baker, Dreher, Shiplet, Beall, Voelker, Garrett, et al., 2011; CCSS, 2010; Venezky, 2000). The concern that the U. S. is not preparing enough students for jobs in science, technology, engineering, and math (the STEM disciplines) has prompted the National Research Council (NRC) to provide a framework for science education for kindergarten through twelfth grade (National Research Council, 2012). While the CCSS and the NRC frameworks are not delineated for preschool, the emergent literacy perspective supports addressing informational texts in preschool (Rohde, 2015). Learning how to glean information from expository texts is necessary for learning science and cannot be acquired by reading narrative texts alone (Best, Floyd, & McNamara, 2008). Several studies have shown that students who are exposed to informational texts can gain foundational knowledge and enjoy learning from nonfiction texts (Culatta, Hall-Kenyon, & Black, 2010; Duke & Kays, 1998; Pappas, 1991). These children are also likely to be better prepared to learn more complex texts in upper grades (Shanahan & Shanahan, 2014). Learning informational text skills will help students in an increasingly technical job market.

The noted benefits that come from exposing children to expository texts supports the argument that teachers of young children should deliberately and systematically incorporate



instructional strategies geared toward improving children's informational text comprehension in their classrooms. In order to do that, teachers need to know how informational texts differ from narrative texts and what demands or skills young children can be expected to acquire.

### **Nature of Informational Text Demands**

Addressing informational texts in intervention requires teachers to understand the nature of informational text demands. Informational texts can be characterized in terms of their vocabulary and content, text structure, text features, and signal devices.

**Vocabulary and content.** As a subset of the larger category of nonfiction, informational text gives facts (Duke & Bennett-Armistead, 2003). Its primary purpose is to inform readers about the natural and social world in which they live (Tompkins, 2012). Because informational text deals with facts rather than specific events, it is by nature more conceptual and abstract than narrative content (Ukrainetz, 2006). While reading informational text, readers can also encounter specialized language like generalized nouns and timeless verbs. They might encounter sentences like "Cats meow"; "Rabbits eat grass"; and "apples are red, yellow, or green," which imply certain facts about all cats, rabbits, and apples.

Because informational text is geared to convey factual and accurate information to the reader, it uses technical language that is specific to the larger social and physical world. It often describes and explains events that are not within the realm of most children's everyday experiences and exposes children to unfamiliar technical vocabulary (Hall, Sabey, & McClellan, 2005). For instance, children may be familiar with the concept of *sleep*, but not with the closely related terms *dormant* or *hibernate*.

As children focus on content, their vocabularies grow. As they gain technical vocabulary, they can also gain academic language (Gardner 2004; Price, van Kleeck, & Huberty,

2009). This in turn will facilitate discussions and increase comprehension, helping children make connections between ideas (Westby, Culatta, & Hall-Kenyon, 2014).

**Text structures.** Unlike narrative text, which usually follows a story grammar structure, informational text can have several different structures. Five commonly found structures are description, cause and effect, problem/solution, sequence, and compare/contrast (Culatta, Hall-Kenyon, & Black, 2010). Authors of informational texts will use a text structure that will convey and highlight ways in which important relationships in the text are related (Duke & Kays, 1998; Hall, Sabey, & McClellan, 2005; Moss 1997; Pappas, 1991).

Becoming aware of these structures helps teacher instruction and student comprehension of informational text (Englert & Thomas, 1987; Meyer, 1975; Meyer & Freedle, 1984). When students understand the structures, they can anticipate how information will be presented, identify main ideas, and make important connections between given facts and among texts (Culatta, Hall-Kenyon, & Black, 2010).

**Signal devices.** Informational texts can also contain signal devices that help with comprehension and indicate the structural relationship within the text. These devices often clue the reader to the organization of the text structure. For instance, if a reader encounters a text using the words *same as* or *different from*, this is an indication that the text structure being used is compare/contrast. Similarly, when the words *if . . . then* appear, or *because*, these words signal the reader that the text structure is cause/effect. Each particular text structure has specific signal devices. These devices also help the reader to organize and compare information relationships within the text (Culatta, Hall-Kenyon, & Black, 2010).

**Text features.** A variety of text features are also employed in informational text to help the reader find information quickly and efficiently. These might include a table of contents, headings, an index, bold or italicized text, glossaries for specialized vocabulary, embedded

definitions for specialized vocabulary, realistic illustrations or photos, captions and other labels, and graphs or charts (McDonald, 2016).

Text features like headings, tables of contents, and indexes can help children to locate specific information more easily (Culatta, Hall-Kenyon, & Black, 2010). Graphic text features help enlarge the written information, help explain abstract ideas, and support ideas that have been interpreted and presented in the text (Norman, 2010).

In summary, text structure, signal devices, and text features help readers to identify and focus on text information that is most relevant to their learning goals and to construct a representation of the text content (Lorch & Lorch, 1995; Meyer, Brandt, & Bluth, 1980). When teachers instruct students to identify and use these important text demands, they can help ensure student understanding of information text. For this reason, these are the demands that must be manipulated when children's skills are assessed.

### **Assessment of Informational Text Comprehension**

Appropriate instruction concerning informational texts is integral to assessment of children's abilities to handle the demands of such texts. When teachers are provided with accurate information about a child's comprehension skills, the teacher is able to create lessons that meet the child's specific need and can assist the student by addressing areas of learning which are lacking (Hall, Markam, & Culatta, 2005; Harding, 2014). As informational text instruction has been insufficient in the past, these assessment tools can be particularly helpful in promoting relevant and needed instruction in the preschool setting.

Although some assessments for informational text comprehension exist for primary grades, mostly concurrent with assessment of narrative text, there are not any available for assessment of preschool-age children. In recent years there has been an effort to develop the Early Expository Comprehension Assessment (EECA), a preschool assessment tool that is

exclusively for informational text. Development of the EECA started in 2005 with a study by Hall, Markham, and Culatta (2005) and has been continued by two consecutive studies, one by Harding (2014) and EECA-R2 by McDonald (2016). The EECA-R2, which was digitized to standardize administration and allow the use of more graphics, assesses the text structures of compare/contrast, problem/solution, description, and sequencing, as well as identifying the difference between fiction and nonfiction text. Children's comprehension is assessed first by having them retell a text and then by having them describe the text with the use of a mapping system about the text. The McDonald iteration was shown to be a reliable and valid assessment.

After suggested changes to the EECA-R2, the goal of the current study has been to provide teachers of preschool children with a tool for assessing children's comprehension of informational texts. An assessment is needed that is appropriate for young children that can address children's ability to handle informational text demands; it can serve as a companion to instruction that exposes children to text structures, signal devices, and text features.

## **CHAPTER 3**

### **Method**

After statistical analysis, McDonald (2016) made several suggestions to address difficulties with questions and scoring issues in the EECA-R2. These suggestions and others made in a pilot study for EECA-R3 conducted by Stacey Christianson (2017) were reviewed and incorporated into an updated version of the EECA (EECA-R3; see Appendix A for list of changes).

### **Participants**

A total of 108 participants were drawn from six public title one preschool classrooms and three private preschool classrooms in a local university laboratory preschool. All classrooms were located in a suburban area of the western United States. If children were English language learners (ELLs), they were assessed as being sufficiently skilled in English by their teachers before being selected to participate. All the children were between four and five years old. Before the children were eligible to participate, forms were sent home for parent/guardian consent.

### **Measures**

Two measures were selected for this study. The Early Expository Comprehension Assessment-R3 (EECA-R3) was designed with two forms to assess information text comprehension skills in preschool children. The Test of Story Comprehension (TSC), a subtest of the Narrative Language Measures (NLM), was used to establish concurrent validity of the EECA-R3.

**EECA-R3.** The original EECA measure, created in 2005, examined preschool children's ability to comprehend compare/contrast text (Hall, Markham, et al., 2005). In 2014 Harding expanded the assessment to include problem/solution text. McDonald (2016) added a

sequencing text and digitized the test administration to provide consistency. Digitizing also allowed the use of graphics and mapping tools to enhance the assessment. The EECA-R3 incorporated suggested changes which were made after analyzing both the EECA-R2 study (McDonald, 2016) and the pilot study for the EECA-R3 (Christianson, 2017; see Appendix A for a list of the changes).

The EECA-R3 was designed to examine preschool children's comprehension of various expository texts that differ in their text structure. The EECA-R3 consists of 27 total items (see Appendix B for list of items) and includes the following tasks: identifying the purpose, identifying graphics, labeling, retelling, mapping, and sequencing. The EECA-R3 tested students on a number of expository text tasks.

***Identifying the purpose of a text.*** This task entails discerning a narrative text from an expository one. The EECA presents pictures of two different books and asks the student what book she would choose should she want to read a story about a make-believe giraffe or elephant. It then instructs the student to tell the administrator why she chose the book she selected. Because the question has a 50% chance of being guessed correctly, the EECA-R3 also includes a follow-up question about whether or not a real giraffe or elephant could speak or go to school. The EECA-R3 then delivers a similar set of questions, only asking which book the student would pick if she wanted to learn about real giraffes or elephants.

***Identifying descriptive passages of a text.*** This task assesses students' ability to identify a descriptive expository text and match it with a figure exemplifying the text. The EECA-R3 first gives a sentence of expository text about either a giraffe or an elephant and instructs the student to select the picture that demonstrates the text. This task is presented a second time with a second set of pictures. Then the EECA-R3 instructs the student to describe to the administrator, in his own words, a new picture of a giraffe or elephant performing an action. Finally, the EECA-R3

instructs the student to tap on a series of labels on various body parts of a giraffe or elephant corresponding to the auditory text the EECA-R3 gives.

***Identifying elements of a compare and contrast passage of a text.*** This task determines a student's ability to compare similarities and differences in a text. EECA-R3 gives a short expository text comparing the similarities and differences of either frogs and lizards or rabbits and hamsters. The organization of the text is highlighted with the inclusion of such key words as *same*, *different*, and *on the other hand*. The EECA-R3 then instructs students to retell what they learned from the passage and presents a chart where they label the similarities and differences between the two animals. After the student has completed the chart, the EECA-R3 instructs the student to explain how the animals are similar and different, using her own words.

***Identifying elements of a problem/solution passage of text.*** This task determines a student's ability to relate problems and his solutions in a text. The EECA-R3 gives a short expository text about either doctors or firefighters and describes the problems they encounter and the solutions they use to fix the problems. The task divides the text using terms such as *problem*, *fix*, and *solve*. The EECA-R3 then instructs the student to retell what he learned from the passage and complete a chart where he labels the problems the professionals faced and the solutions to their problems. After completing the chart, the EECA-R3 instructs the student to explain the problems and solutions in his own words.

***Identifying elements of a sequence passage of a text.*** This task assesses a student's ability to decipher the stages of a sequence in a text. The EECA-R3 gives a short expository text about how either beans or tadpoles grow. The task divides the growth pattern into four stages using terms such as *first*, *next*, *after that*, and *finally*. The EECA-R3 then instructs the student to retell what she learned about the developmental sequence using her own words. Then the EECA-

R3 presents a chart labeling the steps of the sequence. After completing the chart, the task instructs the student to explain the steps of the sequence using her own words.

**Test of Story Comprehension (TSC).** The Test of Story Comprehension, a subtest of the Narrative Language Measure, consists of two short narrative passages to be read aloud, followed by six questions that are designed to assess comprehension: Who was the story about? What was his/her problem? How did he/she feel about the problem? What did he/she do to fix the problem? What happened at the end of the story? How did he/she feel at the end of the story?) This test is not digitized. Instead, it was designed to be administered orally with a written protocol and scoring sheet.

The TSC was selected to establish concurrent validity because its format is similar to the EECA-R3 (text with follow-up questions) and because the questions are very similar to the ones used on the EECA-R3. The TSC assesses children's comprehension of connected discourse, which fits with the purpose of the EECA-R3, even though the TSC draws upon narrative text while the EECA-R3 draws upon informational text.

## **Procedures**

Before data collection occurred, permission was obtained through the participating school district as well as from the principal of each school and the director of the private university preschool. After consent was obtained, teachers were contacted via email and invited to participate in the study. Participating teachers were given consent forms for parents to sign to allow child participation in the study.

**Examiner training.** Eleven undergraduate and two graduate students were hired to be test administrators. These students attended two trainings sessions: one for the TSC, a subtest of the NLM Preschool Assessment, and one for the EECA-R3. Three graduate students and a BYU faculty member trained administrators on administering the TSC and the EECA-R3. The



protocol for test administration included scripted prompts for each of the test components (see Test Protocols in Appendix C and Appendix D). A separate scoring sheet was developed by the graduate students to facilitate collection of data for the administrators (see Appendix E and Appendix F). All administrators practiced administering the tests to each other. They were also taught how to make an audio recording of the session and how to store the data.

**Administration.** Actual test administration began after examiner training was completed. Each child participant received the TSC and both versions of the EECA-R3. The TSC was given first, followed by Forms A and B of the EECA-R3. Administrators were instructed that there should be at least a 20-minute gap between any test administrations for the same participant. The TSC tool took about 5-10 minutes to administer. Each EECA-R3 form took about 15-20 minutes to administer. Ideally, Forms A and B of the EECA-R3 test were given at least one day apart but no longer than two weeks apart. The administrators followed an administration schedule that allowed the student to be chosen at random and rotate through eight possible administration combinations (see Table 1). By following the administration schedule (Table 1), examinees were systematically assigned all combinations of the test forms (A & B) and examiners, with administration still being randomized. This schedule was determined before testing began.

Table 1

*Possible Sequences and Combinations of Test Versions and Administrators*

First			Second	
Possibilities	Version	Examiner	Version	Examiner
1	A	1	B	2
2	A	1	B	1
3	A	2	B	1
4	A	2	B	2
5	B	1	A	2
6	B	1	A	1
7	B	2	A	1
8	B	2	A	2

*Note.* Adapted from *Determining the Reliability of an Early Expository Comprehension Assessment*, by T. Harding, 2014, (Master's thesis). Available from <http://scholarsharchive.byu.edu/edt>, 4316.

Both forms of the EECA-R3 were administered on an iPad, which recorded some of the answers digitally and scored them automatically. In addition, all responses were recorded on a written protocol that was later scored manually. These protocols included space for the administrator to record the responses to open-ended questions. The administrator also audio recorded each session for later review of lengthy and vague responses. Several testing sessions were also videotaped to ensure uniformity in test administration.

**Inter-rater reliability.** The scoring protocol (see Appendices G and H) was created from recommendations from the EECA-R3 study (McDonald, 2016) and the pilot study of the EECA-R3 (Christianson, 2017). Questions were either dichotomous ( *correct* = 1 or *incorrect* = 0), or polytomous (a range of points 0-4).

Because several polytomous questions were subjective in nature and created a possibility of unequal scoring by graders, ten tests were scored by more than one grader to establish inter-rater

reliability. Two graduate students and one hired undergraduate student were first trained on scoring, then scored the participants' responses. Inter-rater reliability was established among the three scorers. Each scorer scored the same ten tests. The mean agreement among scorers was 94%.

### **Data Analysis**

Concurrent validity was examined by comparing the relationship (correlation) between the student scores on the TSC, the narrative subtest of the Narrative Language Measure, and each form of the EECA-R3. On the TSC, which measures preschool students' ability to retell and comprehend narrative text, students are read passages and then asked questions about events relating to the structure of the text. The TSC was chosen because its formatting is very similar to many of the subtests of the EECA-R3 (read a passage and ask questions about its structure). The TSC was judged to be the best option for a comparison test because there are currently no well established measures for expository text comprehension designed for young children. Correlations were calculated between the TSC and each form of the EECA-R3. If the EECA-R3 is valid, there should be a positive and strong correlation between the TSC and the EECA-R3.

## CHAPTER 4

### Results

The aim of the study was to examine the validity of the EECA-R3 as a preschool assessment for comprehension of informational texts. Means and standard deviations for the EECA and TSC were obtained, and correlations between the EECA-R3 and the TSC were calculated.

#### Descriptive Statistics

Table 2 contains the descriptive statistics for the scores of the TSC and the EECA-R3.

Table 2

*Descriptive Statistics of Test Results for TSC and EECA-R3*

Measure	<i>N</i>	<i>M</i>	<i>SD</i>
Test of Story Comprehension (TSC)	108	9.64	6.252
EECA-A	108	25.14	9.198
EECA-B	108	25.41	9.805
Sum score of EECA-(A+B)	108	50.55	17.62

#### Concurrent Validity of EECA-R3

Concurrent validity was determined by calculating correlations between children's performance on the EECA-R3 and the TSC. The correlation between Form A of the EECA-R3 and the TSC was  $r = .669, p = \leq .01, N = 108$ ; the correlation between Form B of the EECA-R3 and the TSC was  $r = .612, p = \leq .01, N = 108$ ; and the correlation between the EECA-R3 (with the means of Form A and Form B combined) and the TSC was  $r = .690, p = \leq .01, N = 108$ . The effect size ( $r$ ) calculated on the correlation between the combined EECA-R-3 score (Forms A and B together) and the TSC was .47, which is considered large. These are considered strong and positive correlations and a large effect size, which would suggest that the EECA-R3 is a valid

measure. Table 3 presents the correlation matrix: the correlations between the TSC and the EECA-R3 with the two forms separated and combined. These positive correlations between the EECA-R3 and the TSC indicate concurrent validity.

Table 3

*Correlation Matrix Table of TSC, EECA-A, EECA-B and EECA-(A+B)\**

Measure		TSC	EECA-A	EECA-B	EECA-(A+B)*
TSC	Pearson Correlation	1			
	Sig. (2-tailed)**				
	N	108			
EECA-A	Pearson Correlation	.669	1		
	Sig. (2-tailed)				
	N	108	108		
EECA-B	Pearson Correlation	.612	.720	1	
	Sig. (2-tailed)		.000	.000	
	N	108	108	108	
EECA-(A+B)*	Pearson Correlation	.690	.922	.932	1
	Sig. (2-tailed)		.000	.000	.000
	N	108	108	108	108

*Note.* \* EECA-(A+B) is the combined score of the EECA-R3 Form A and the EECA-R3 Form B

\*\* $p = 0.01$  level (2-tailed)

## **CHAPTER 5**

### **Discussion**

The results of the study suggest that the EECA-R3 is a valid preschool assessment. Despite differences in the types of texts used to assess comprehension in the TSC and EECA-R3 (narrative vs. expository), positive and significant correlations were obtained between the TSC and EECA-R3, an indication of concurrent validity. However, because narrative and expository texts differ in text structure and content, caution is used in claiming construct validity. The significance of the findings will be considered along with limitations and future research.

### **Significance**

Teachers need a valid tool that is appropriate for use with preschool-age children to assess their informational text comprehension. Since several educational frameworks suggest that children should be exposed to informational text early, any instructional endeavors in this area should include efforts to evaluate and monitor children's comprehension (Greene, 2012; Neuman & Roskos, 2012). An assessment tool for evaluating informational text comprehension can assist preschool teachers to better develop appropriate specific curriculum to meet the needs of their students. This is accomplished as teachers gain understanding of what is involved in informational text comprehension and what preschool children are able to do in the domain of informational text comprehension. Because the EECA-R3 includes expository text structures and features, it not only can aid the teacher in evaluating children's emerging abilities in text-level comprehension, but may also call their attention to aspects of text comprehension skills that can be addressed in intervention.

The strong and positive correlations between the EECA-R3 and the TSC support the assumption that the tests are assessing some of the same underlying skills. As both of these tests

are designed to assess text-level comprehension, EECA-R3 can be inferred to contribute to teachers' evaluation of skills.

### **Limitations**

While the strong positive correlation between TSC and EECA-R3 suggests concurrent validity, some factors might have influenced the results. Possible limitations relate to the nature of population, language abilities of young children, and selection of the comparison assessment.

**Nature of the population.** Because preschool children are developmentally diverse, standardized assessments for this age group can be particularly challenging to develop. Text comprehension itself may be difficult for young children.

The relatively low means and the large standard deviations on both the TSC and EECA-R3 indicate a possible floor effect on the TSC and the EECA-R3. This is because some of the preschool children had difficulty performing the test tasks. However, despite the fact that some children did not do well, there was a range in children's abilities. The positive and significant correlation and the moderate-to-large effect size suggest that students who received high scores on the TSC generally had correspondingly high scores on the EECA-R3.

**Language abilities of child participants.** Today's preschools have children from diverse language backgrounds. One of the procedures in the study called for teachers to screen students and recommend only those who had sufficient English skills to be successful. Examiners indicated that a few students should have been considered English language learners and perhaps should have been excluded from testing. The inclusion of some ELLs could have contributed to the number of children who had difficulty handling the test demands.

**Selection of the comparison measure.** The positive correlations between the TSC and EECA-R3 established concurrent validity. The TSC appeared to be an appropriate comparable measure despite the fact that it assesses comprehension of narrative rather than informational

text. However, the data indicate some concerns in using the TSC as a comparison measure. The mean on the TSC, as well as on the EECA-R3, was lower than expected, about half the total possible points, and the standard deviations indicated greater variability than expected. As indicated, some children experienced difficulty performing the text comprehension tasks. The large effect size, however, suggests that those who scored well on the TSC also received high scores on the EECA-R3. While the TSC did not measure comprehension of informational text, the task demands of both measures appear to be comparable, as judged by the study results.

### **Future Study Recommendations**

Recommendations for future research pertain primarily to controlling variables that may have influenced the results. Some changes might relate to the populations sampled, EECA-R-3 tasks, and the comparison measure.

**Children's ages.** The data suggest that developmental age is an influencing factor. Many assessment tests are organized according to developmental stages with stipulated beginning and ending protocols. Organizing tasks developmentally might be one way to address this factor. In addition, the EECA-R3 could be administered to kindergarten as well as preschool children. Research with an older population might answer questions of task appropriateness for the different developmental ages.

**Test tasks.** One of the reasons for evaluating the test has been to ensure that test tasks included elements that students can handle. Future research could evaluate test items based on the item response theory. Such an assessment would help researchers identify which test items actually functioned as they were designed. Test items of concern could be identified and adjusted to meet children's entering abilities.

**Comparison measure.** In spite of positive and strong results, researchers should continue to search for additional similar comparison tasks to augment these findings. Comparing



the EECA-R3 to another early comprehension measure, especially if that measure was specific to expository text, could further verify validity. As researchers continue to develop early expository comprehension measures, the EECA-R3 may be used to assist in establishing validity of those measures.

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## APPENDIX A: LIST OF CHANGES IN THE PROTOCOL

1. A question was added to the section on identifying fiction/nonfiction.
1. In Version A a picture of a giraffe mother with her nursing baby was changed to a picture of a giraffe drinking water.
2. Wording for the prompts was changed to fill out the maps.
3. Scoring was changed to dichotomous mapping.
4. Prompts were changed to have children retell using the maps. Questions were split to provide back-up prompts instead of giving the same support to every student.



## APPENDIX B: LIST OF ITEMS IN EECA

Number	Test
1	Identifying fiction
2	Identifying nonfiction
3	Matching picture to text
4	Matching picture to text
5	Identifying graphic
6	Identifying Label
7	Identifying Label
8	Identifying Label
9	Identifying Label
10	Identifying Label
11	Identifying Label
12	Identifying Label
13	Retelling Compare/contrast passage (unaided)
14	Using signal devices in Item 13
15	Mapping compare/contrast passage (unaided)
16	Retelling compare/contrast with map and prompts
17	Using signal devices in Item 16
18	Retelling problem/ solution passage (unaided)
19	Using signal devices in Item 18
20	Mapping problem/solution passage
21	Retelling problem/solution with map and prompts
22	Using signal devices in Item 21

- 23 Retelling sequence passage (unaided)
- 24 Using signal devices in Item 23
- 25 Mapping sequence passage
- 26 Retelling sequence with map and prompts
- 27 Using signal devices in Item 26

## APPENDIX C: EECA VERSION A STUDENT RECORDING SHEET

Student Name: \_\_\_\_\_.

Teacher Name: \_\_\_\_\_.

Administrator Name: \_\_\_\_\_.

Date: \_\_\_\_\_.

EECA Version A Student Recording Sheet

“Hi! My name is Jane. Today we are going to read some books together so we can help some of my friends. I’m going to ask you some questions about the books. Some of the questions might be easy. Some of the questions might be tricky. Don’t worry—just do the best you can. On each page, wait until I have finished talking to answer the questions.

Practice

“With some questions you will have to tap on a picture to tell me your answer and then tap on a yellow box. Let’s have a practice. Move me into the yellow box by tapping on me and then tapping on the yellow box.”

“Great work!”

Giraffe Text

“Here are pictures of two different books.”

- 1a. “Which book should I choose if I want to read a pretend, make-believe story about giraffes? Tap on the book that I should choose.”**

*If no response, say, “If I want to read a pretend, make-believe story about giraffes which book should I choose?”*

Fiction Nonfiction No response (after 1 prompt)

If you circle this, skip to 1c

- 1b. “Here is the book you chose. Tell the person sitting next to you why you chose that book.”**

*If no response, say, “Why did you choose that book?”*

- 1c. Administrator should ask child this question before moving on: “If you looked at a book with a pretend story about giraffes, could the giraffes in the story go to school and sing songs?”**

*If no response, say, “If you looked at a book with a pretend story about giraffes, could the giraffes in the story go to school and sing songs?”*

Yes No No response (after 1 prompt)

“Here are pictures of two different books, again.”

- 2a. Which book should I choose if I want to read about real giraffes—about where they**

**live and what they eat? Tap on the book that I should choose.**

*If no response, say, “If I want to read about where real giraffes live and what they eat, which book should I choose?”*

Fiction Nonfiction No response (after 1 prompt)

If you circle this skip to 2c

- 2b. Here is the book you chose. Tell the person sitting next to you why you chose that book.**

*If no response, say, "Why did you choose that book?"*

- 2c. Administrator should ask child this question before moving on: If you looked at a book about real giraffes, could the giraffes in the book go to school and sing songs?**

*If no response, say, "If you looked at a book about real giraffes, could the giraffes in the book go to school and sing songs?"*

Yes No No response (after 1 prompt)

"I'm going to read some of this book. See if you can find the pictures that go with what I read."

- 3. "Giraffes use their long necks to reach leaves at the top of trees.' Tap on the picture that goes with what I just read."**

*If no response, repeat, "'Giraffes use their long necks to reach leaves at the top of trees.' Tap on the picture that goes with what I just read."*

Yes No No response (after 1 prompt)

- 4. "Giraffes can sleep standing up.' Tap on the picture that goes with what I just read."**

*If no response, repeat, "'Giraffes can sleep standing up.' Tap on the picture that goes with what I just read."*

Yes No No response (after 1 prompt)

- 5. "Tell the person sitting next to you what is happening in this picture" (giraffe drinking water).**

*If no response, repeat, "What is happening in this picture?"*

"On this page there are some words with lines pointing to different parts of the pictures. The words are labels for different parts of the giraffe."

*For the following questions (6-12), if no response, repeat, "Tap on the label that says \_\_\_\_."*

- 6. Tap on the label that says *horn*.** word line item incorrect no response (after 1 prompt)

- 7. Tap on the label that says *tongue*.** word line item incorrect no response (after 1 prompt)

- 8. Tap on the label that says *legs*.** word line item incorrect no response (after 1 prompt)

9. **Tap on the label that says *ear*.** word line item incorrect no response (after 1 prompt)
10. **Tap on the label that says *tail*.** word line item incorrect no response (after 1 prompt)
11. **Tap on the label that says *eye*.** word line item incorrect no response (after 1 prompt)
12. **Tap on the label that says *neck*.** word line item incorrect no response (after 1 prompt)

“Terrific!”

### Lizards and Frogs text

“Now we are going to read about some different animals. My friend Anna is getting a new pet. She is getting a lizard or a frog. She needs to know how to take care of these animals. Let’s read about lizards and frogs. As we read, listen for how lizards and frogs are the same and how they are different. Then we can help Anna know how to care for them.

#### Pet Lizards and Frogs



“Lizards and frogs make cool pets. Lizards and frogs eat the same things. They eat crickets. You can buy crickets at the pet store. In some ways pet lizards and frogs are different. Lizards and frogs need different things in their tank. Lizards need a warm tank with sand. Frogs are different. Frogs need a tank with water and rocks. If you get a pet lizard or frog, remember what it needs. What type of food does it eat? What does it need in its tank? That will help you take good care of your pet!”

13. **“Here is my friend Anna. Tell her what you learned about lizards and frogs.”**  
*If no response, prompt, “What did you learn about lizards and frogs?”*  
*After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

14. **Give 1 point if there is evidence that the student paid attention to the structure (max 1 point).**

“We are going to organize what we just read about lizards and frogs onto this chart. It will help Anna see how lizards and frogs are the same and how they are different. This says *lizards* (lights up), and this says *frogs* (lights up). We are going to answer these questions (light up) about lizards and frogs. You will tap on the picture that shows the answer and then tap on the box that it goes in. You can use the same picture in more than one box.

*NOTE: IF a child asks what a picture is, tell him (e.g., sand, ladybug, water and rocks, cricket).*

		
	Lizards	Frogs
What do they eat?	1	2
What do they need in their tank?	3	4

*Check each box with a correct picture.*

- 15a. **“Lizards—What do they eat? What do lizards eat? Tap on the picture that**

**shows what lizards eat and then tap on the yellow box.”**

*If no response, prompt, “What do lizards eat? (point to the box) Tap on the picture that shows what lizards eat and then tap on the yellow box.”*

**15b. “Frogs—What do they eat? What do frogs eat? Tap on the picture that shows what frogs eat and then tap on the yellow box.”**

*If no response, prompt, “What do frogs eat? (point to the box) Tap on the picture that shows what frogs eat and then tap on the yellow box.”*

**15c. “Lizards—What do they need in their tank? What do lizards need in their tank? Tap on the picture that shows what lizards need in their tank and then tap on the yellow box.”**

*If no response, prompt, “What do lizards need in their tank? (point to the box) Tap on the picture that shows what lizards need in their tank and then tap on the yellow box.”*

**15d. “Frogs—What do they need in their tank? What do frogs need in their tank? Tap on the picture that shows what frogs need in their tank and then tap on the yellow box.”**

*If no response, prompt, “What do frogs need in their tank? (point to the box) Tap on the picture that shows what frogs need in their tank and then tap on the yellow box.”*

“Good job!”

**16. “Here is the chart all filled out. Look at the chart and tell the person sitting next to you how lizards and frogs are the same and how they are different.”**

*If no response, prompt, “Look at the chart and tell me how lizards and frogs are the same and how they are different.” After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

*If there is still no response or the child didn’t give an answer for both same/different, cover up the bottom half of the chart and ask, “What do you learn about lizards and frogs from this part of the chart?”*

*Then cover up the top half of the chart and ask, “What do you learn about lizards and frogs from this part of the chart?”*

**17. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)**

### Firefighters

“My friend Carlos just found out that firefighters are coming to his preschool. He is so excited! He wants to learn about what firefighters do and how they help people. Will you help Carlos learn about firefighters? We can read about what firefighters do and how they help people. Then when Carlos is here you can tell him what you found out.”

## Firefighters

“Firefighters drive a red fire truck. They wear special clothes. They do a very important job. Firefighters put out fires. Have you ever seen something on fire? A car can catch on fire. A tree can catch on fire. Even a house can catch on fire. A house on fire is a big problem. The firefighters will fix the problem. The firefighters will spray water on the fire. This will stop the fire and fix the problem. Sometimes a cat gets stuck in a tall tree. This is a problem. Firefighters can fix the problem. They can use the ladder on the fire truck. A firefighter will climb up the ladder and get the cat out of the tree. This will solve the problem. Firefighters work hard to fix problems. They are brave. They help keep people and animals safe.”

### 18. “Here is my friend Carlos. Tell him what you learned about firefighters.”

*If no response, prompt, “What did you learn about firefighters?”*

*After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

“We are going to organize what we just read about firefighters onto this chart. It will help Carlos see the problems firefighters take care of and how they fix them. This says *problem* (lights up). This says *solution* (lights up). A solution is how somebody fixes a problem. We are going to answer some questions about the problems firefighters take care of. You will tap on the picture that shows the answer and then tap on the box that it goes in.

*Note: IF a child asks what a picture is, tell her (e.g., firefighter spraying water, cat stuck in a tree, ladder, house on fire).*



Problem	Solution
1	2
3	4

*Check each box with a correct picture.*

### 19. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)

#### 20a. “What is one problem firefighters take care of? Tap on the picture that shows one problem that firefighters take care of and then tap on the yellow box.”

*If no response, prompt, “What is one problem firefighters take care of? Tap on the picture that shows what firefighters take care of and then tap on the yellow box” (point to the box).*

#### 20b. “How do firefighters fix that problem? Tap on the picture that shows how firefighters fix that problem and then tap on the yellow box.”

*If no response, prompt, “How do firefighters fix that problem? Tap on the picture that shows how firefighters fix that problem and then tap on the yellow box” (point to the box).*

#### 20c. “What is another problem firefighters take care of? Tap on the picture that shows another problem that firefighters take care of and then tap on the yellow box.”

*If no response, prompt, “What is another problem firefighters take care of? Tap on the picture that shows another problem firefighters take care of and then tap on the yellow box” (point to the box).*

**20d. “How do firefighters fix that problem? Tap on the picture that shows how firefighters fix that problem and then tap on the yellow box.”**

*If no response, prompt, “How do firefighters fix that problem? Tap on the picture that shows how firefighters fix that problem and then tap on the yellow box” (point to the box).*

“Nice work!”

**21. “Here is the chart all filled out. Look at the chart and tell the person sitting next to you about two problems firefighters help with and what they do to fix them.”**

*If no response, prompt, “Look at the chart and tell me about the problems firefighters help with and what they do to fix them.” After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

*If still no response or child doesn’t give two sets of problems/solutions, **first cover bottom half** and prompt, “Tell me what you learned about firefighters from this part of the chart.”*

*(Then cover top half). “Tell me what you learned about firefighters from this part of the chart.”*

**22. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)**

*Administrator: Click forward arrow three times to reach next slide, 68 (66 and 67 are silent).*

### Beans

“My friend Sam loves to eat beans. He wants to know how we get beans. Let's read a book so we can teach my friend about how we get beans.”

How Do We Get Beans?

“Have you ever planted a bean seed? Have you ever wondered what will happen? First, the bean seed will start to grow roots. The roots will grow down into the dirt. The roots are like tiny straws. They suck up water from the dirt. The water helps the bean seed to grow. Next the bean seed grows a shoot. The shoot pokes up out of the dirt into the air. The shoot is also called the stem. Then leaves will start to grow on the stem. The bean plant needs sun and water to grow. Later beans will start to grow on the plant. Finally, the beans will be big. They will be ready to pick.”

**23. “Here is my friend Sam. Tell him what you learned about beans.”**



*If no response, prompt, “What did you learn about beans?”*

*After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

**24. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point).**

“We are going to organize onto this chart what we just read about how we get beans. It will help Sam know how we get beans. This says *first* (word lights up). This says *next* (lights up). This says *then* (lights up). This says *finally* (lights up). We are going to answer some questions about how we get beans. You will tap on the picture that shows the answer and then tap on the correct box.”

*NOTE: IF a child asks what a picture is, tell him (e.g., bean plant with beans, bean plant with leaves, bean seed with roots, bean seed with a shoot).*



first	next	then	finally
1	2	3	4

*Check each box with a correct picture.*

**25a. “What happens first when beans grow? Tap on the picture that shows what happens first when beans grow and then tap on the yellow box.”**

*If no response, prompt, “Use the chart to tell me what happens first when beans grow.”*

*After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

**25b. “What happens next when beans grow? Tap on the picture that shows what happens next when beans grow and then tap on the yellow box.”**

*If no response, prompt, “Use the chart to tell me what happens next when beans grow.”*

*After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

**25c. “What happens after that when beans grow? Tap on the picture that shows what happens after that when beans grow and then tap on the yellow box.”**

*If no response, prompt, “Use the chart to tell me what happens after that when beans grow.”*

*After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

**25d. “What happens last when beans grow? Tap on the picture that shows what happens last when beans grow and then tap on the yellow box.”**

*If no response, prompt, “Use the chart to tell me what happens last when beans grow.”*

*After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

“Super job!”

- 26. “Here is the chart all filled out. Look at the chart and tell the person sitting next to you how beans go from being a seed to becoming a bean.”**

*If no response, prompt, “Look at the chart and tell me how beans grow from being a seed to becoming a bean.”*

*If there is still no answer or the child doesn’t explain each box, point to each box individually and say, “Tell me about this part.” First, next, then, finally.*

- 27. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point).**

*Administrator: Click forward arrow three times to reach Slide 89 (87 and 88 are silent).*

Great work! We're finished. I hope you enjoyed reading about giraffes, lizards and frogs, firefighters, and beans.

## APPENDIX D: EECA VERSION B STUDENT RECORDING SHEET

Student Name: \_\_\_\_\_  
 Teacher Name: \_\_\_\_\_  
 Administrator Name: \_\_\_\_\_  
 Date: \_\_\_\_\_

EECA Version B Student Recording Sheet

“Hi! My name is Jane. Today we are going to read some books together so we can help some of my friends. I’m going to ask you some questions about the books. Some of the questions might be easy. Some of the questions might be tricky. Don’t worry—just do the best you can. On each page, wait until I have finished talking before you answer the questions.”

Practice

“With some questions you will have to tap on a picture to tell me your answer and then tap on a yellow box. Let’s have a practice. Move me into the yellow box by tapping on me and then tapping on the yellow box.”

“Great work!”

Elephant Text

“Here are pictures of two different books.”

- 1a. “Which book should I choose if I want to read a pretend, make-believe story about elephants? Tap on the book that I should choose.”**

*If no response, say, “If I want to read a pretend, make-believe story about elephants which book should I choose?”*

Fiction   Nonfiction   No response (after 1 prompt)  
 If you circle this skip to 1c

- 1b. “Here is the book you chose. Tell the person sitting next to you why you chose that book.”**

*If no response, say, “Why did you choose that book?”*

- 1c. Administrator should ask child this question before moving on: “If you looked at a book with a pretend story about elephants, could the elephants in the story bake a cake for their friend?”**

*If no response, say, “If you looked at a book with a pretend story about elephants, could the elephants in the story bake a cake for their friend?”*

Yes   No   No response (after 1 prompt)

Here are pictures of two different books, again.

- 2a. “Which book should I choose if I wanted to read about real elephants—where they**

**live and what they eat? Tap on the book that I should choose.”**

*If no response, say, “If I want to read about where real elephants live and what they eat, which book should I choose?”*

Fiction Nonfiction No response (after 1 prompt)  
If you circle this skip to 2c

**2b. “Here is the book you chose. Tell the person sitting next to you why you chose that book.”**

*If no response, say, “Why did you choose that book?”*

**2c. Administrator should ask child this question before moving on: “If you looked at a book about real elephants, could the elephants in the book bake a cake for their friend?”**

*If no response, say, “If you looked at a book about real elephants, could the elephants in the book bake a cake for their friend?”*

Yes No No response (after 1 prompt)

“I’m going to read some of this book. See if you can find the picture that goes with what I read.”

**3. “An elephant uses its trunk to squirt water on its body to keep cool. Tap on the picture that goes with what I just read.”**

*If no response, repeat, “An elephant uses its trunk to squirt water on its body to keep cool. Tap on the picture that goes with what I just read.”*

Yes No No response (after 1 prompt)

**4. “Elephants can swim. They keep their trunk above water to breathe. Tap on the picture that goes with what I just read.”**

*If no response, repeat, “Elephants can swim. They keep their trunk above water to breathe. Tap on the picture that goes with what I just read.”*

Yes No No response (after 1 prompt)

**5. Tell the person sitting next to you what is happening in this picture (elephant uses its trunk to eat). *If no response, repeat, “What is happening in this picture?”***

“On this page there are some words with lines pointing to different parts of the picture. The words are labels for different parts of the elephant.”

*For the following questions 6-12, if no response, repeat, “Tap on the label that says \_\_\_\_\_”*

**6. “Tap on the label that says *trunk*.”** word line item incorrect no response (after 1 prompt)

**7. “Tap on the label that says *skin*.”** word line item incorrect no response (after 1 prompt)

**8. “Tap on the label that says *eye*.”** word line item incorrect no response (after 1 prompt)

- |  |      |      |                                    |
|--|------|------|------------------------------------|
| <b>9. “Tap on the label that says <i>foot</i>.”</b><br>prompt)   | word | line | item incorrectno response (after 1 |
| <b>10. “Tap on the label that says <i>ear</i>.”</b><br>prompt)   | word | line | item incorrectno response (after 1 |
| <b>11. “Tap on the label that says <i>tail</i>.”</b><br>prompt)  | word | line | item incorrectno response (after 1 |
| <b>12. “Tap on the label that says <i>mouth</i>.”</b><br>prompt) | word | line | item incorrectno response (after 1 |

Terrific!

### Pet Rabbits and Hamsters text

“Now we are going to read about some different animals. My friend Anna is getting a new pet. She is getting a rabbit or a hamster. She needs to know how to care for these animals. Let’s read about rabbits and hamsters. As we read, listen for how rabbits and hamsters are the same and how they are different. Then we can help Anna know how to care of them.”

#### Pet Rabbits and Hamsters

“Rabbits and hamsters make fun pets. You can buy them at the pet store. In some ways rabbits and hamsters are the same. Rabbits and hamsters can sleep on the same type of bed. They sleep on wood flakes. In other ways rabbits and hamsters are different. Rabbits and hamsters eat different things. Rabbits eat hay and grass. Hamsters are different. Hamsters eat seeds and nuts. If you get a pet rabbit or hamster, remember what it needs. What type of bed does it like? What type of food does it eat? That will help you take good care of your pet!”

#### **13. Here is my friend Anna. Tell her what you learned about rabbits and hamsters.**

*If no response, prompt, “What did you learn about rabbits and hamsters?”*

*After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

#### **14. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point).**

“We are going to organize what we just read about rabbits and hamsters onto a chart like this. It will help Anna see how rabbits and hamsters are the same and how they are different. This says *rabbits* (lights up) and this says *hamsters* (lights up). Now we are going to answer these questions (lights up) about rabbits and hamsters. You will tap on the picture that shows the answer and then tap on the box that it goes in. You can use the same picture in more than one box.”

*NOTE. IF a child asks what a picture is, tell him (seeds and nuts, wood flakes, grass, cotton wool).*



	 Rabbits	 Hamsters
What do they eat?	1	2
What do they sleep on?	3	4

Check each box with a correct picture.

**15a. “Rabbits—What do they eat? What do rabbits eat? Tap on the picture that shows what rabbits eat and then tap on the yellow box.”**

*If no response, prompt, “What do rabbits eat? (point to the box) Tap on the picture that shows what rabbits eat and then tap on the yellow box.”*

**15b. “Hamsters—What do they eat? What do hamsters eat? Tap on the picture that shows what hamsters eat and then tap on the yellow box.”**

*If no response, prompt, “What do hamsters eat? (point to the box) Tap on the picture that shows what hamsters eat and then tap on the yellow box.”*

**15c. “Rabbits—What do they sleep on? What do rabbits sleep on? Tap on the picture that shows what rabbits sleep on and then tap on the yellow box.”**

*If no response, prompt, “What do rabbits sleep on? (point to the box) Tap on the picture that shows what rabbits sleep on and then tap on the yellow box.”*

**15d. “Hamsters—What do they sleep on? What do hamsters sleep on? Tap on the picture that shows what hamsters sleep on and then tap on the yellow box.”**

*If no response, prompt, “What do hamsters sleep on? (point to the box) Tap on the picture that shows what hamsters sleep on and then tap on the yellow box.”*

Good job!

**16. “Here is the chart all filled out. Look at the chart and tell the person sitting next to you how rabbits and hamsters are the same and how they are different.”**

*If no response, prompt, “Look at the chart and tell me how rabbits and hamsters are the same and how they are different.”*

*After child finishes response ask, “Anything else?” (Use this prompt only once.)*

*If there is still no response, or the child didn’t give an answer for both same and different, **cover up the bottom row of the chart** and ask, “What do you learn about rabbits and hamsters from this part of the chart?”*

Then **cover up the top row** and ask, “What do you learn about rabbits and hamsters from this part of the chart?”

- 17. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point).**

### Doctors

“My friend Carlos is sick. He has to go to the doctor. He’s a bit worried about it. He wants to learn about what doctors do and how they help people. Will you help Carlos learn about doctors? We can read in a book about what doctors do and how they help people. Then when Carlos is here you can tell him what you found out.

### Doctors

“Doctors work in a hospital. They wear special clothes. They do a very important job. Doctors help people get better. Have you ever been sick? Did you have a cold? Did you have red spots on your body? Did you break a bone? Breaking a bone in your body is a big problem. It might be your leg, or your arm, or your finger. The doctor will fix the problem. The doctor will set the bone straight and put it in a cast. This will help the bone grow back together. Sometimes your ears might hurt. This is a problem. The doctor can fix the problem. The doctor will give you some medicine. This will solve the problem. Doctors work hard to fix problems. They are very helpful. They take care of people.

- 18. Here is my friend Carlos. Tell him what you learned about doctors.**

*If no response, prompt, “What did you learn about doctors?”*


*After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

- 19. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point).**

“We are going to use this chart to organize what we just read about doctors. It will help Carlos see the problems doctors take care of and how they solve them. This says *problem* (lights up). This says *solution* (lights up). A solution is how somebody fixes a problem. We are going to answer some questions about the problems doctors take care of. You will tap on the picture that shows the answer and then tap on the box that it goes in.

*NOTE: IF a child asks what a picture is tell her (medicine, broken arm, cast, hurting ear).*

Problem	Solution
1	2
3	4



Check each box with a correct picture.

- 20a “What is one problem doctors take care of? Tap on the picture that shows one problem that doctors take care of and then tap on the yellow box.”**

*If no response, prompt, “What is one problem doctors take care of? Tap on the picture that shows what doctors take care of, and then tap on the yellow box (point to the box).”*

- 20b. “How do doctors fix that problem? Tap on the picture that shows how doctors fix that problem and then tap on the yellow box.”**

*If no response, prompt, “How do doctors fix that problem? Tap on the picture that shows how doctors fix that problem, and then tap on the yellow box (point to the box)”*

- 20c. “What is another problem doctors take care of? Tap on the picture that shows another problem that doctors take care of and then tap on the yellow box.”**

*If no response, prompt, “What is another problem doctors take care of? Tap on the picture that shows another problem doctors take care of, and then tap on the yellow box (point to the box)”*

- 20d. “How do doctors fix that problem? Tap on the picture that shows how doctors fix that problem, and then tap on the yellow box.”**

*If no response, prompt, “How do doctors fix that problem? Tap on the picture that shows how doctors fix that problem, and then tap on the yellow box (point to the box).”*

“Nice work!”

- 21. “Here is the chart all filled out. Now we can use this chart to talk about problems doctors take care of and how they fix them. Look at the chart and tell the person sitting next to you the problems doctors take care of and how they fix them.”**

*If no response, prompt, “Look at the chart and tell me the problems doctors take care of and how they fix them.”*

*After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

*If there is still no response or the child doesn’t give two sets of problem/solution, **first cover bottom row** and ask, “Tell me what you learned about doctors from this part of the chart.”*

*(Then cover top row). “Tell me what you learned about doctors from this part of the chart.”*

- 22. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)**

*Administrator, click forward three times to reach Slide 68. (Slides 66 and 67 are silent.)*



## Frogs Text

“My friend Sam has been exploring and found some frogs. He wants to know about how frogs grow. Let's read a book so we can teach my friend about how frogs grow.”

Frogs: How do they grow?

“Have you ever seen a frog? Have you ever wondered where frogs come from? First an adult frog lays eggs. The eggs look like small black dots. The eggs are covered in something that feels like jelly. The frog will put the eggs in water. Next the eggs hatch. Out come tadpoles. Tadpoles are small and black. They look a bit like fish. Tadpoles swim with their tail. Then the tadpoles start to grow small legs. The tadpole becomes a baby frog. Finally, the baby frog will get big. It will become an adult frog. The frog's legs will be strong. The frog will be able to jump on rocks and swim in the water.”

**23. “Here is my friend Sam. Tell him what you learned about how frogs grow.”**

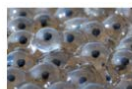
*If no response, prompt, “What did you learn about how frogs grow?”*

*After child finishes response, ask, “Anything else?” ( Use this prompt only once.)*

**24. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point).**

“We are going to organize on this chart what we just read about how frogs grow. It will help us to talk about how frogs grow. This says *first* (point to the word, which will light up). This says *next* (lights up). This says *then* (lights up). This says *finally* (lights up). We are going to answer some questions about how frogs grow. You will tap on the picture that shows the answer and then tap on the correct box.”

*NOTE: IF a child asks what a picture is tell him (tadpoles, adult frog, frog's eggs, tadpoles with legs).*



first	next	then	finally
1	2	3	4

*check each box with a correct answer*

**25a. “What happens first when frogs grow? Tap on the picture that shows what happens first when frogs grow, and then tap on the yellow box.”**

*If no response, prompt, “What happens first when frogs grow? Tap on the picture that shows what happens first when frogs grow, and then tap on the yellow box.*

*After child finishes response ask, “Anything else?” (Use this prompt only once.)*

**25b. “What happens next when frogs grow? Tap on the picture that shows what happens next when frogs grow, and then tap on the yellow box.”**

*If no response, prompt, “What happens next when frogs grow? Tap on the picture that shows what happens next when frogs grow, and then tap on the yellow box.”*

*After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

**25c. “What happens after that when frogs grow? Tap on the picture that shows what happens after that when frogs grow, and then tap on the yellow box.”**

*If no response, prompt, “What happens after that when frogs grow? Tap on the picture that shows what happens after that when frogs grow, and then tap on the yellow box.”*

*After child finishes response ask, “Anything else?” (Use this prompt only once.)*

**25d. “What happens last when frogs grow? Tap on the picture that shows what happens last when frogs grow, and then tap on the yellow box. “**

*If no response, prompt: “What happens last when frogs grow? Tap on the picture that shows what happens last when frogs grow, and then tap on the yellow box.”*

*After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

“Super job!”

**26. “Here is the chart all filled out. Look at the chart and tell the person sitting next to you how frogs go from being an egg to being a frog.”**

*If no response, prompt, “Look at the chart and tell me how frogs go from being an egg to being a frog.”*

*After child finishes response, ask, “Anything else?” (Use this prompt only once.)*

*If there is still no answer, or the response is jumbled or missing parts, point to each box individually and say, “Tell me about this part.”*

*First*

*Next*

*Then*

*Finally*

**27. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)**

*Administrator, click forward arrow three times to reach Slide 89 (87 and 88 are silent).*

Great work! We're finished. I hope you enjoyed reading about elephants, rabbits and hamsters, doctors, and frogs.

## APPENDIX E: EECA PROTOCOL FORM A

<b>EECA Protocol Form A</b>	Examiner: _____ Student Name: _____ Date: _____ Teacher: _____	
V: Text = Voice Narration / Prompt    NR = No Response    E: Text = Examiner Prompt    Text (#) = Answer (score) NR = No Response [after 2nd Prompt]    #/90 = Slide Number    #x = Item / Question Number		
<b>Purpose Task (Items 1 &amp; 2)</b>	<b>Description Task (Items 3 – 12)</b>	
<p>(5/90) V: Which book should I choose if I wanted to read a pretend, make-believe story about giraffes? Tap on the book that I should choose.          (If NR), E: If I want to read a pretend, make-believe story about giraffes, which book should I choose?          1a.    <b>Fiction (*) Non-Fiction (0) NR (0)</b></p> <p>(7/90) V: Here is the book you chose. Tell the person sitting next to you why you chose that book.          (If NR), E: Why did you choose that book?          1b.    <b>Stated (2)      Implied (1)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/>                <b>Incorrect (0)    NR (0)</b></p> <p>E: If you looked at a pretend book about giraffes, could the giraffes in the story go to school and sing songs?          (if NR), repeat          1c.    <b>Yes (*) No (0) NR (0)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/></p> <p style="text-align: center;">* Correct for 1a. &amp; 1c. = (1 Total)</p>	<p>(13/90) V: Giraffes use their long necks to reach leaves at the top of trees. Tap on the picture that goes with what I just read.          (If NR), repeat          3.        <b>Correct (1) Incorrect (0) NR (0)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/></p> <p>(14/90) V: Giraffes can sleep standing up. Tap on the picture that goes with what I just read.          (If NR), repeat          4.        <b>Correct (1) Incorrect (0) NR (0)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/></p> <p>(15/90) V: Tell the person sitting next to you what is happening in this picture.          (If NR), E: What is happening in this picture?          5.        <b>Stated (2)      In Picture (1)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/>                <b>Irrelevant (0)    NR (0)</b></p>	
<p>(9/90) V: Which book should I choose if I wanted to read about real giraffes, about where they live and what they eat? Tap on the book that I should choose.          (If NR), E: If I want to read about where real giraffes live and what they eat, which book should I choose?          2a.    <b>Fiction (0) Non-Fiction (*) NR (0)</b></p> <p>(11/90) V: Here is the book you chose. Tell the person sitting next to you why you chose that book.          (If NR), E: Why did you choose that book?          2b.    <b>Stated (2)      Implied (1)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/>                <b>Incorrect (0)    NR (0)</b></p> <p>E: If you looked at a book about real giraffes, could the giraffes in the story go to school and sing songs?          2c.    <b>Yes (0) No (*) NR (0)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/></p> <p style="text-align: center;">* Correct for 2a. &amp; 2c. = (1 Total)</p>	<p>(17/90) V: Tap on the label that says horn.**          6.    <b>Word (2) Line/Picture (1) Incorrect (0) NR (0)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/></p> <p>(18/90) V: Tap on the label that says tongue.**          7.    <b>Word (2) Line/Picture (1) Incorrect (0) NR (0)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/></p> <p>(19/90) V: Tap on the label that says legs.**          8.    <b>Word (2) Line/Picture (1) Incorrect (0) NR (0)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/></p> <p>(20/90) V: Tap on the label that says ear.**          9.    <b>Word (2) Line/Picture (1) Incorrect (0) NR (0)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/></p> <p>(21/90) V: Tap on the label that says tail.**          10. <b>Word (2) Line/Picture (1) Incorrect (0) NR (0)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/></p> <p>(22/90) V: Tap on the label that says eye.**          11. <b>Word (2) Line/Picture (1) Incorrect (0) NR (0)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/></p> <p>(23/90) V: Tap on the label that says neck.**          12. <b>Word (2) Line/Picture (1) Incorrect (0) NR (0)</b>      <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/></p> <p>** (If NR), repeat</p>	
TOTAL PURPOSE TASK (Items 1 & 2): <input style="width: 40px; height: 20px; border: 1px solid black; text-align: center; float: right;" type="text"/> /6	TOTAL DESCRIPTION TASK (Items 3 – 12): <input style="width: 40px; height: 20px; border: 1px solid black; text-align: center; float: right;" type="text"/> /18	

Compare Task (Items 13 – 17)	Solution Task (Items 18 – 22)
<p>(36/90) V: Here is my friend Anna. Tell her what you learned about lizards and frogs. (Once finished), E: Anything else? [once] (If NR), E: What did you learn about lizards and frogs? 13.</p> <p>14.</p>	<p>(57/90) V: Here is my friend Carlos. Tell him what you learned about firefighters. (Once finished), E: Anything else? [once] (If NR), E: What did you learn about firefighters? 18.</p> <p>19.</p>
<p>If the child asks what is in the picture, tell them. (38/90) V: What do lizards eat? Tap on the picture that shows what lizards eat, and then tap on the yellow box.** 15a. Crickets (*) Incorrect (0) NR (0)</p> <p>(39/90) V: What do frogs eat? Tap on the picture that shows what frogs eat, and then tap on the yellow box.** 15b. Crickets (*) Incorrect (0) NR (0)</p> <p>(40/90) V: What do lizards need in their tank? Tap on the picture that shows what lizards need in their tank, and then tap on the yellow box.** 15c. Sand (*) Incorrect (0) NR (0)</p> <p>(41/90) V: What do frogs need in their tank? Tap on the picture that shows what frogs need in their tank, and then tap on the yellow box.** 15d. Water (*) Incorrect (0) NR (0)</p> <p>** (If NR), repeat and point to the blank box *Correct for 15a. – 15d. = (1 Total)</p> <div data-bbox="683 1066 764 1108" style="border: 1px solid black; width: 50px; height: 20px; margin-left: auto;"></div>	<p>(59/90) V: What is one problem firefighters take care of? Tap on the picture that shows one problem that firefighters take care of, and then tap on the yellow box.** 20a. Fire/Cat (*) Incorrect (0) NR (0)</p> <p>(60/90) V: How do firefighters fix that problem? Tap on the picture that shows how firefighters fix that problem, and then tap on the yellow box.** 20b. Water/Ladder (*) Incorrect (0) NR (0)</p> <p>(61/90) V: What is another problem firefighters take care of? Tap on the picture that shows another problem that firefighters take care of, and then tap on the yellow box.** 20c. Fire/Cat (*) Incorrect (0) NR (0)</p> <p>(62/90) V: How do firefighters fix that problem? Tap on the picture that shows how firefighters fix that problem, and then tap on the yellow box.** 20d. Water/Ladder (*) Incorrect (0) NR (0)</p> <p>** (If NR), repeat and point to the blank box *Correct for 20a. – 20d. = (1 Total)</p> <div data-bbox="1227 1066 1308 1108" style="border: 1px solid black; width: 50px; height: 20px; margin-left: auto;"></div>
<p>(44/90) V: Look at the chart and tell the person sitting next to you how lizards and frogs are the same, and how they are different. (Once finished) E: Anything else? [once] (If NR) E: repeat (If NR again) E: [cover lower half of the chart] What did you learn from this part of the chart? [repeat with upper half] 16.</p> <p>17.</p> <p>TOTAL COMPARE TASK (Items 13 – 17):</p> <div data-bbox="649 1560 764 1612" style="border: 1px solid black; width: 70px; height: 25px; text-align: center; float: right;">/11</div>	<p>(65/90) V: Look at the chart, and tell the person sitting next to you about two problems firefighters help with, and what they do to they fix them. (Once finished) E: Anything else? [once] (If NR) E: repeat (If NR again) E: [cover lower half of the chart] What did you learn from this part of the chart? [repeat with upper half] 21.</p> <p>22.</p> <p>(66 &amp; 67 have blank audio files, skip to 68)</p> <p>TOTAL SOLUTION TASK (Items 18 – 22):</p> <div data-bbox="1192 1560 1308 1612" style="border: 1px solid black; width: 70px; height: 25px; text-align: center; float: right;">/11</div>

## APPENDIX F: EECA PROTOCOL FORM B

<b>EECA Protocol Form B</b>	<b>Examiner:</b> _____ <b>Student Name:</b> _____ <b>Date:</b> _____ <b>Teacher:</b> _____
V: Text = Voice Narration / Prompt    NR = No Response    E: Text = Examiner Prompt <b>Text (#)</b> = Answer (score) NR = No Response [after 2nd Prompt]    #/90 = Slide Number    #x = Item / Question Number	
<b>Purpose Task (Items 1 &amp; 2)</b>	<b>Description Task (Items 3 – 12)</b>
<p>(5/90) V: Which book should I choose if I wanted to read a pretend, make-believe story about elephants? Tap on the book that I should choose.          (If NR), E: If I want to read a pretend, make-believe story about elephants, which book should I choose?          1a.      Fiction (*) Non-Fiction (0) NR (0)</p> <p>(7/90) V: Here is the book you chose. Tell the person sitting next to you why you chose that book.          (If NR), E: Why did you choose that book?          1b.      Stated (2)      Implied (1)                    Incorrect (0)      NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p> <p>E: If you looked at a pretend book about elephants, could the elephants in the story bake a cake for their friend?          (If NR), repeat          1c.      Yes (*) No (0) NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p> <p style="text-align: center;">* Correct for 1a. &amp; 1c. = (1 Total)</p>	<p>(13/90) V: An elephant uses its trunk to squirt water on its body to keep cool. Tap on the picture that goes with what I just read.          (If NR), repeat          3.      Correct (1) Incorrect (0) NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p> <p>(14/90) V: Elephants can swim. They keep their trunk above water to breathe. Tap on the picture that goes with what I just read.          (If NR), repeat          4.      Correct (1) Incorrect (0) NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p> <p>(15/90) V: Tell the person sitting next to you what is happening in this picture.          (If NR), E: What is happening in this picture?          5.      Stated (2)      In Picture (1)                    Irrelevant (0)      NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p>
<p>(9/90) V: Which book should I choose if I wanted to read about where real elephants live and about what they eat? Tap on the book that I should choose.          (If NR), E: If I want to read about where real elephants live and what they eat, which book should I choose?          2a.      Fiction (0) Non-Fiction (*) NR (0)</p> <p>(11/90) V: Here is the book you chose. Tell the person sitting next to you why you chose that book.          (If NR), E: Why did you choose that book?          2b.      Stated (2)      Implied (1)                    Incorrect (0)      NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p> <p>E: If you looked at a book about real elephants, could the elephants in the story bake a cake for their friend?          2c.      Yes (0) No (*) NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p> <p style="text-align: center;">* Correct for 2a. &amp; 2c. = (1 Total)</p>	<p>(17/90) V: Tap on the label that says trunk. **          6.      Word (2) Line/Picture (1) Incorrect (0) NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p> <p>(18/90) V: Tap on the label that says skin. **          7.      Word (2) Line/Picture (1) Incorrect (0) NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p> <p>(19/90) V: Tap on the label that says eye. **          8.      Word (2) Line/Picture (1) Incorrect (0) NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p> <p>(20/90) V: Tap on the label that says foot. **          9.      Word (2) Line/Picture (1) Incorrect (0) NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p> <p>(21/90) V: Tap on the label that says ear. **          10.      Word (2) Line/Picture (1) Incorrect (0) NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p> <p>(22/90) V: Tap on the label that says tail. **          11.      Word (2) Line/Picture (1) Incorrect (0) NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p> <p>(23/90) V: Tap on the label that says mouth. **          12.      Word (2) Line/Picture (1) Incorrect (0) NR (0)      <input style="width: 40px; height: 20px;" type="text"/></p> <p>** (If NR), repeat</p>
TOTAL PURPOSE TASK (Items 1 & 2): <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/> /6	TOTAL DESCRIPTION TASK (Items 3 – 12): <input style="width: 40px; height: 20px; border: 1px solid black;" type="text"/> /18



Compare Task (Items 13 – 17)	Solution Task (Items 18 – 22)
<p>(36/90) V: Here is my friend Anna. Tell her what you learned about rabbits and hamsters. (If NR), E: What did you learn about rabbits and hamsters? (Once finished), E: Anything else? [once] 13.</p> <p>14.</p>	<p>(57/90) V: Here is my friend Carlos. Tell him what you learned about doctors. (If NR), E: What did you learn about doctors? (Once finished), E: Anything else? [once] 18.</p> <p>19.</p>
<p>If the child asks what is in the picture, tell them. (38/90) V: What do rabbits eat? Tap on the picture that shows what rabbits eat, and then tap on the yellow box.** 15a. Grass (*) Incorrect (0) NR (0)</p> <p>(39/90) V: What do hamsters eat? Tap on the picture that shows what hamsters eat, and then tap on the yellow box.** 15b. Seeds (*) Incorrect (0) NR (0)</p> <p>(40/90) V: What do rabbits sleep on? Tap on the picture that shows what rabbits sleep on, and then tap on the yellow box.** 15c. Wood Flakes (*) Incorrect (0) NR (0)</p> <p>(41/90) V: What do hamsters sleep on? Tap on the picture that shows what hamsters sleep on, and then tap on the yellow box.** 15d. Wood Flakes (*) Incorrect (0) NR (0)</p> <p>** (If NR), repeat and point to the blank box <input data-bbox="695 1199 784 1241" type="text"/> * Correct for 15a. – 15d. = (1 Total)</p>	<p>(59/90) V: What is one problem doctors take care of? Tap on the picture that shows one problem that doctors take care of, and then tap on the yellow box.** 20a. Bone/Earache (*) Incorrect (0) NR (0)</p> <p>(60/90) V: How do doctors fix that problem? Tap on the picture that shows how doctors fix that problem, and then tap on the yellow box.** 20b. Cast/Medicine (*) Incorrect (0) NR (0)</p> <p>(61/90) V: What is another problem doctors take care of? Tap on the picture that shows another problem that doctors take care of, and then tap on the yellow box.** 20c. Bone/Earache (*) Incorrect (0) NR (0)</p> <p>(62/90) V: How do doctors fix that problem? Tap on the picture that shows how doctors fix that problem, and then tap on the yellow box.** 20d. Cast/Medicine (*) Incorrect (0) NR (0)</p> <p>** (If NR), repeat and point to the blank box <input data-bbox="1317 1199 1406 1241" type="text"/> * Correct for 20a. – 20d. = (1 Total)</p>
<p>(44/90) V: Look at the chart and tell the person sitting next to you how rabbits and hamsters are the same, and how they are different. (If NR) E: repeat (If NR again) E: [cover lower half of the chart] What did you learn from this part of the chart? [repeat with upper half] (Once finished) E: Anything else? [once] 16.</p> <p>17.</p> <p>TOTAL COMPARE TASK (Items 13 – 17): <input data-bbox="654 1759 784 1822" type="text"/> /11</p>	<p>(65/90) V: Look at the chart, and tell the person sitting next to you about two problems doctors help with, and what they do to they fix them. (If NR) E: repeat (If NR again) E: [cover lower half of the chart] What did you learn from this part of the chart? [repeat with upper half] (Once finished) E: Anything else? [once] 21.</p> <p>22.</p> <p>(66 &amp; 67 have blank audio files, skip to 68)</p> <p>TOTAL SOLUTION TASK (Items 18 – 22): <input data-bbox="1276 1759 1406 1822" type="text"/> /11</p>

Sequence Task (Items 23 – 27)	SCORING
<p>(78/90) V: <i>Here is my friend Sam. Tell him what you learned about how frogs grow.</i>            (If NR), E: What did you learn about frogs?            (Once finished), E: Anything else? [once]            23.</p> <p>24.</p>	<p><b>Form B</b>      <b>Student Name:</b></p> <p><b>Date:</b>      <b>Teacher Name:</b></p> <p><b>Purpose Task:</b> <input type="text" value="/6"/></p> <p><b>Description Task:</b> <input type="text" value="/18"/></p> <p><b>Compare Task:</b> <input type="text" value="/11"/></p> <p><b>Solution Task:</b> <input type="text" value="/11"/></p> <p><b>Sequence Task:</b> <input type="text" value="/11"/></p> <p><b>TOTAL RAW SCORE:</b> <input type="text" value="/57"/></p>
<p>(80/90) V: <i>What happens first when frogs grow? Tap on the picture that shows what happens first when frogs grow, and then tap on the yellow box.**</i>            25a. Eggs (*) Incorrect (0) NR (0)</p> <p>(81/90) V: <i>What happens next when frogs grow? Tap on the picture that shows what happens next when frogs grow, and then tap on the yellow box.**</i>            25b. Tadpoles (*) Incorrect (0) NR (0)</p> <p>(82/90) V: <i>What happens after that when frogs grow? Tap on the picture that shows what happens after that when frogs grow, and then tap on the yellow box.**</i>            25c. Young Frogs (*) Incorrect (0) NR (0)</p> <p>(83/90) V: <i>What happens last when frogs grow? Tap on the picture that shows what happens last when frogs grow, and then tap on the yellow box.**</i>            25d. Adult Frogs (*) Incorrect (0) NR (0)</p> <p>** (If NR), repeat and point to the blank box <input type="text"/></p> <p>*Correct for 25a. – 25d. = (1 Total)</p>	<p><b>Notes &amp; Comments:</b></p>
<p>(86/90) V: <i>Look at the chart and tell the person sitting next to you how frogs go from being a egg to a frog.</i>            (If NR) E: repeat            (If NR again) E: [point to each box of the chart] What did you learn from this part of the chart?            (Once finished) E: Anything else? [once]            26.</p> <p>27.</p> <p>(87 &amp; 88 have blank audio files, skip to 89)</p> <p><b>TOTAL SEQUENCE TASK (Items 23 – 27):</b> <input type="text" value="/11"/></p>	

## APPENDIX G: SCORING GUIDE VERSION A

## Giraffe Text

1a. Which book should I choose if I want to read a pretend, make-believe story about giraffes?

Point to the book that I should choose.

Correct Answer: Fiction (look at 1c for how this part is graded)

Incorrect: Nonfiction/ No response

1b. Tell the person sitting next to you why you chose that book.

Correct answer: The picture of the giraffe is pretend.

The correct answer is stated 2 points

e.g., Because it was pretend

It's a pretend one – just like she said

Because it isn't real

Correct answer is implied 1 point

e.g., Because it's a kids one

It makes you believe ... like your dreams

Cause it has hearts on the side

Correct answer is not stated or implied/NR 0 point

e.g., Because I like that one

Because it's a giraffe

1c. If you looked at a pretend book about giraffes, could the giraffes in the story go to school and sing songs?

Correct Answer: Yes

Correct answer for 1a + 1c 1 point

2a. Which book should I choose if I want to read about where real giraffes live and what they eat?

Correct Answer: Nonfiction (look at 2c for how this part is graded)

Incorrect: Fiction/ No response

2b. Tell the person sitting next to you why you chose that book.

Correct answer: The picture of the giraffe is real.

Correct answer is stated 2 points

e.g., Because it's a real giraffe

Because it's a story about a real giraffe

Correct answer is implied 1 point

e.g., I wanted to see where they live

So people can learn about animals



It tells you where giraffe lives and what they eat.

Correct answer is not implied or stated/ NR 0 points

e.g., Because animals they eat. They play with their swings and go to their grandmas.

Because I like the book

3. Giraffes use their long necks to reach leaves at the top of trees. Tap on the picture that goes with what I just read.

Yes 1 point

No / No response 0 points

4. Giraffes can sleep standing up. Point to the picture that goes with what I just read.

Yes 1 point

No / No response 0 points

5. Tell the person next to you what is happening in this picture.

Correct answer: The giraffe is drinking water

Correct answer is stated 2 points

e.g., The giraffe is drinking

Something is stated that is in the picture 1 point

but is not the correct answer

e.g., He has a long neck.

There's water.

Giraffe is standing in the mud.

The correct answer is not implied or stated/ NR 0 points

e.g., He's cute.

He's dancing.

6-12. Point to the label that says ...

word 2 points

line / item 1 point

incorrect / no response 0 points

13. Here is my friend Anna. Tell her what you learned about lizards and frogs:

No information from the text or no response 0 points

e.g., 1 is black and white and is different. And they play like this (jumped)

1-2 pieces of information from the text 1 points

e.g., You have to take care of them.

That they are different. Don't have the same tank.

3-4 pieces of information from the text 2 points

e.g., I learned about frogs eat crickets and lizards eat crickets. And they are different.

To take care of lizard, need a home with sand. To take care of a frog, need to get them food and get them the home with grass & rocks.

They eat bugs. And they're different. One needs sand. One needs water.

They need different things in tanks. Frogs need rocks and lizards need sand and it can climb mountains.

5-9 pieces of information from the text 3 points

e.g., Frogs and lizards are pets and you can hold them. You keep them in a tank. They eat crickets. Lizards need sand. Frogs need water.

10+ pieces of information from the text 4 points

“

e.g., Lizards and frogs make cool pets. Lizards and frogs eat the same things. They eat crickets. You can buy crickets at the pet store. In some ways pet lizards and frogs are different. Lizards and frogs need different things in their tank. Lizards need a warm tank with sand. Frogs are different. Frogs need a tank with water and rocks”

14. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)  
If they use a key word

e.g., same, different, similar, both, alike, however, but

OR

If they talk about similarities or differences together

e.g., I learned about frogs eat crickets and lizards eat crickets.

One needs sand, one needs water

They eat crickets.




The following would NOT get a point:

You have to take care of them

They eat crickets

They live in a tank

. Give 1 point if every picture is in the correct box (max 1 pt.):

	 Lizards	 Frogs
What do they eat?		
What do they need in their tank?		

NOTE: the responses to the following question could be split over the main question and the two back-up questions.

16. Use the chart to tell the person sitting next to you how lizards and frogs are the same and how they are different. Give 1 point for every piece of information they talk about from the map (max 4 points)

Refer to 0 boxes from map      0 points

e.g., They're green.

They eat.

Refer to 1 box from map      1 point

e.g., They need sand.

Refer to 2 boxes from map      2 points

e.g., They eat the same food.

Refer to 3 boxes from map      3 points

e.g., They eat crickets. Have water and rocks.

Refer to 4 boxes from map      4 points

e.g., One lives in water and the other needs sand. Both of them eat crickets.

They eat the same things and live in different things.

They have different tanks. They eat the same things. One of them needs sand and the other needs rocks.

NOTE: If a child points to each picture correctly in response to the questions, rather than describe what's happening, please highlight the box on the scoring sheet in blue.

17. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)  
If they use a key word  
e.g., same, different, similar, both, alike, however, but

OR

They talk about similarities or differences together  
e.g., I learned about frogs eat crickets and lizards eat crickets.  
One needs sand. One needs water.  
They eat crickets. Have water and rocks.

The following would NOT get a point:  
Lizards like crickets.

Firefighters Text

18. Here is my friend Carlos. Tell him what you learned about firefighters. (max 4 pts)  
No information from the text or no response 0 points

e.g., They do a good job

They help everything

1-2 pieces of information from the text 1 points

e.g., Spray water and getting cats out of the tree

The cat got stuck on the tree and the firefighters got the kitty cat down the tree

3-4 pieces of information from the text 2 points

e.g., They save cars, houses, cats ... They have a cool job.

I learned about firefighters drive a red truck. They get the cat out of the tree. They save people.

They help animals & people be safe and they take out fire and rescue your cat or dog.


By getting the house fired and by the cat got stuck in the tree, and by the car caught fire.

Firefighters can drive in their red car. They are brave. They help people and animals. They fix problems.

5-9 pieces of information from the text 3 points

e.g., So, firefighters. If you have a house on fire they can fix it. If you have a tree on fire they can fix it. If you have a car on fire they can fix it. If you have a cat stuck in a tree they can get it down with a ladder.

10+ pieces of information from the text 4 points

Problem	Solution
	
	

e.g., “Firefighters drive a red fire truck. They wear special clothes. They do a very important job. Firefighters put out fires. Have you ever seen something on fire? A car can catch

on fire. A tree can catch on fire. Even a house can catch on fire. A house on fire is a big problem. The firefighters will fix the problem. The firefighters will spray water on the fire. This [water] will stop the fire and fix the problem. Sometimes a cat gets stuck in a tall tree. This is a problem. Firefighters can fix the problem. They can use the ladder on the fire truck. A firefighter will climb up the ladder and get the cat out of the tree. This will solve the problem. Firefighters work hard to fix problems. They are brave. They help keep people and animals safe.”

19. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)

If they use a key word

e.g., problem, solution, solve, fix

OR

If they talk about problems/solutions together

e.g.: They can fire everything and they can stop the fire

The cat got stuck on the tree and the firefighters got the kitty cat down the tree.

The following would NOT get a point:

They put out fire – they use hose

Use ladder to get kittens from tree

They spray the water and save pets

They help animals and people be safe and they take out fire and rescue your cat or dog.

20. Give 1 point for every picture in the correct box.

(max 4 points)

NOTE: The rows could be switched around (fire and water picture on the bottom and cat and ladder picture on the top)

NOTE: the responses to the following question could be split over the main question and the two back-up questions.

21. Tell the person sitting next to you the problems firefighters take care of and how they fix them. Give 1 point for every piece of information they talk about from the map (max 4 points)

Refer to 0 boxes from map      0 points

e.g., The house one.

Refer to 1 box from map      1 point

e.g., The house on fire.

Refer to 2 boxes from map      2 points

e.g., When the cat got stuck in the tree and when house caught fire, went and fixed problem

Refer to 3 boxes from map      3 points

e.g., Firefighters they help. Put the water on it and help the cat to get out of the tree. And then the house was fired and they put water on it and it don't get fired.

Fire house. Kitty cat in the tree. Putting water. Saving the cat.

Refer to 4 boxes from map      4 points

e.g., FF can help with burning house and putting water. Helping the cat with a ladder.

They can spray water out to get the fire out of the house. They could climb up a ladder and get a cat out.

NOTE: If a child points to each picture correctly in response to the questions, rather than describe what's happening, please highlight the box on the scoring sheet in blue.

22. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)

If they use a key word

e.g., problem, solution, solve, fix

OR

If they talk about the problem and solution together

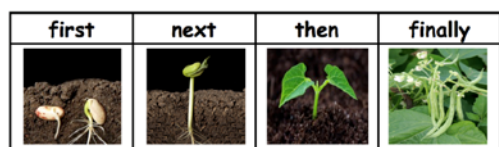
e.g.: Firefighters can help with burning house and putting water.

Cat stuck in tree → use ladder to get cat

House gets on fire and do hose

They get water for when fire is on house they get it

Cats get stuck in a tree and firefighters get a ladder and help them.



To take out fire, need water.

To take cat out of tree, you need a ladder.

The following would NOT get a point:

They take care of cats.

They spray water in a hose

Helping the cat with a ladder

Fire House. Kitty cat in the tree. Putting water. Saving the cat

Beans Text

Here is my friend Sam. Tell him what you learned about beans. (max 4 points)

No information from the text or no response 0 points

1-2 pieces of information from the text 1 point

e.g., Me pull out a plant and leaves will grow on it. That what will grow first. Then it will grow bigger and bigger.

3-4 pieces of information form the text 2 points

e.g., They need water to grow and so you plant them in the dirt.

Beans grow from a stalking. Beans get bigger. Stalkings suck up water.

5-9 pieces of information from the text 3 points

e.g., To get beans, they grow. Need water to make them grow.

Put it in the dirt and they can grow. Then it's ready to pick up.

by planting the beans and the sun and then by picked up the beans when the beans grow

10+ pieces of information from the text 4 points

e.g., First the bean seed will start to grow roots. The roots will grow down into the dirt. The roots are like tiny straws. They suck up water from the dirt. The water helps the bean seed to grow. Next the bean seed grows a shoot. The shoot pokes up out of the dirt into the air. The shoot is also called the stem. Then leaves will start to grow on the stem. The bean plant needs sun and water to grow. Later beans will start to grow on the plant. Finally, the beans will be big. They will be ready to pick."

24. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)  
 If they use a key word  
 e.g., first, then, next, after, later, last, finally

OR

If they talk about what happens in sequence  
 e.g., By planting the beans and the sun and by picked up the beans when the beans grow.  
 You plant a seed. Roots grow. You water the seed. It will grow leaves.

The following would NOT get a point:  
 Beans they need water to grow and so you plant them in the dirt.  
 To get beans, they grow. Need sun and water to make them grow.

25. Give 1 point if every picture is in the correct box:  
 (max 1 point)

NOTE: the responses to the following question could be split over the main question and the two back-up questions.

Use the chart to tell the person sitting next to you how beans go from a seed to becoming a bean.  
 Give 1 point for every piece of information they talk about from the map (max 4 points)

Refer to 0 boxes from chart 0 points  
 e.g., First they get planted, need water. Then they grow.

Refer to 1 box from chart 1 point

e.g., You put a seed in, then you watch it. Then it start to grow. Then it grows more. Then you get the beans. 1 point

Refer to 2 boxes from chart 2 points

e.g., You plant it and give water and sun. The bean grows and turns into a plant. Finally beans grow off.

Cause they put a lot of water. They were little (points at bean seeds). Looks like a plant (points at sprout).

Refer to 3 boxes from chart 3 points



Refer to 4 boxes from chart 4 points

e.g., They have roots. They go up. Then leaves. Then flowers and beans.

NOTE: If a child points to each picture correctly in response to the questions, rather than describe what's happening, please highlight the box on the scoring sheet in blue.

27. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)

If they use a key word

e.g.: first, then, next, after, later, last, finally

OR

If they talk about bean growth in the correct sequence

e.g.: You put the seed and it grows out and gets bigger and drinks water and then you have some beans.

You need to put beans in and then they grow.

They have roots. They go up. Then leaves. Then flowers and beans. They were little. Looks like a plant. It was growing a lot. Plant. Ready to pick up.

The following would NOT get a point:

By planting the flowers and by the sun and by growing and by picking them and by growing and by drinking the water.

## APPENDIX H: SCORING GUIDE VERSION B

**Elephant Text**

**1a. Which book should I choose if I want to read a pretend, make-believe story about elephants? Point to the book that I should choose.**

Correct Answer: Fiction *(look at 1c for how this part is graded)* Incorrect answer:  
Nonfiction/No response

**1b. Tell the person sitting next to you why you chose that book.**

Correct answer: The picture of the elephant is pretend.

The correct answer is stated \_\_\_ 2 points

e.g., Because it was pretend

Because I love to watch movies from the pretend ones

Because it isn't real

Correct answer is implied \_\_\_ 1 point

e.g., Because it is holding a flower

Because the elephant is blue

Correct answer is not stated or implied/NR \_\_\_ 0 points

e.g., Because I like elephants

Because I read it

Because elephants are cool

**1c. If you looked at a pretend book about elephants, could the elephants in the story bake a cake for their friend?**

Correct Answer: Yes

Correct answer for 1a + 1c \_\_\_ 1 point

**2a. Which book should I choose if I want to read about where real elephants live and what they eat?**

Correction Answer: Nonfiction *(look at 2c for how this part is graded)* Incorrect answer: Fiction/No response

**2b. Tell the person sitting next to you why you chose that book.**

Correct answer: The picture of the elephant is real.

Correct answer is stated \_\_\_ 2 points

e.g., Because they're real elephants

Because real elephants eat grass

Correct answer is implied \_\_\_ 1 point

e.g., Because I saw elephants at a zoo

Because it tells us where they live and what they eat

Because she said what elephants eat

Correct answer is not implied or stated/NR\_ 0 points

e.g., Because I like elephants

Because I read it

Because elephants are cool

**2c. If you looked at a book about real elephants, could the elephants in the book bake a cake for their friend?**

Correct Answer: No

Correct answer for 2a + 2c\_ 1 point

**15. An elephant uses its trunk to squirt water on its body to keep cool. Point to the picture that goes with what I just read.**

Yes\_ 1 point

No / No response 0 points

**16. Elephants can swim. They keep their trunk above water to breathe. Point to the picture that goes with what I just read.**

Yes\_ 1 point

No / No response 0 points

**17. Tell the person next to you what is happening in this picture.**

Correct answer: The elephant uses its trunk to eat.

Correct answer is stated\_ 2 points

e.g., He's eating.

Something is stated that is in the picture\_ 1 point  
but is not the correct answer

e.g., The elephant is standing in the flowers.

He has big ears.

The correct answer is not implied or stated/ NR\_ 0 points

e.g., He's lost.

He's walking.

The elephant's cute.

**6-12. Point to the label that says ...**

Word\_ 2 points

Line / item\_ 1 point

Incorrect / no response 0 points

**Pet Rabbits and Hamsters text**

**13. Here is my friend Anna. Tell her what you learned about rabbits and hamsters:**

No information from the text or no response\_ 0 points

e.g., They eat.

1-2 pieces of information from the text\_ 1 points

e.g., They eat food and grass and they sleep in the house.

They live in ... They sleep in ... Rabbits eat grass. Rabbits are different and hamsters are different too.

3-4 pieces of information from the text\_ 2 points

e.g., You can take care of them. Rabbits eat grass and hamsters eat seeds and they are fun pets.

They eat grass and nuts and peanuts ... hamsters eat nuts. They live in same beds

5-9 pieces of information from the text\_ 3 points

e.g., Rabbits eat grass and hay and hamsters eat nuts and seeds and they both like the same kind of bed. In some ways they are different.

10+ pieces of information from the text\_ 4 points

e.g., "Rabbits and hamsters make fun pets. You can buy them at the pet store. In some ways rabbits and hamsters are the same. Rabbits and hamsters can sleep on the same type of bed. They sleep on wood flakes. In other ways rabbits and hamsters are different. Rabbits and hamsters eat different things. Rabbits eat hay and grass. Hamsters are different. Hamsters eat seeds and nuts.

**14. Give 1 point if there is evidence that the student paid attention to the structure (max1 point)**

If they use a key word

e.g., same, different, similar, both, alike, however, but

OR

If they talk about similarities or differences *together*

e.g., Rabbits eat grass and hamsters eat something else.







Rabbits eat hay and grass. Hamsters eat seeds and nuts.

They sleep on woodflakes.

The following would NOT get a point:

They eat food and grass.

**15. Give 1 point if every picture is in the correct box: (max 1 point)**

	 Rabbits	 Hamsters
What do they eat?		
What do they sleep on?		

**NOTE: the responses to the following question could be split over the main question and the two back-up**

**questions.**

**16. Use the chart to tell the person sitting next to you how rabbits and hamsters are the same and how they are different. Give 1 point for every piece of information they talk about from the map (max 4 points)**

Refer to 0 boxes from map \_ \_ 0 points

e.g., That one's black and that one is different. There's a big bunny mom ...  
A lot of grass then they grow.

They eat.

Refer to 1 box from map \_ \_ 1 point

e.g., They eat grass.

Refer to 2 boxes from map \_ \_ 2 points

e.g., Eat different food.

Rabbits eat some grass and then hamsters eat some those (points to seeds)

Refer to 3 boxes from map \_ \_ 3 points

e.g., They eat grass and sleep on the same stuff.

Refer to 4 boxes from map \_ \_ 4 points

e.g., They eat grass and nuts and peanuts. Hamsters eat nuts. They live in same beds.

They sleep in the same things and eat different things.

Hamsters are different because they eat seeds. Bunnies eat grass. That's why they are different. They both sleep in ... I can't remember the word.

NOTE: If a child points to each picture correctly in response to the questions, rather than describe what's happening, please highlight the box on the scoring sheet in blue.

**17. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)**

If they use a key word

e.g., same, different, similar, both, alike, however, but

OR

They talk about similarities or differences together

e.g., Rabbits eat grass. Hamsters eat seeds.

One needs sand, one needs water.

They sleep on woodflakes.

The following would NOT get a point:  
They eat.

Hamsters eat nuts.

**Doctors Text**

**18. Here is my friend Carlos. Tell him what you learned about doctors. (max 4 pts)**

No information from the text or no response 0 points

e.g., They do a good job.

They help everything.

1-2 pieces of information from the text 1 points

e.g., There's hard and they take care of ears.

They wear very special costumes.

They help you feel better.

3-4 pieces of information from the text 2 points

e.g., They work so hard and when somebody gets hurt they fix the problem. They go to the hospital.

They go to the hospital and fix people's bones and help people's ears. They work very hard.

They eat medicine. Sometimes feet/hands/head broken. They get casts.

Doctors are very nice and if you have your leg or your ear hurts or your arm broke and if you have broken thing, they'll do something. If your ear hurts or if sick, they will be super helpful and careful.

5-9 pieces of information from the text 3 points

10+ pieces of information from the text 4 points

e.g., Doctors work in a hospital. They wear special clothes. They do a very important job. Doctors help people get better. Have you ever been sick? Did you have a cold? Did you have red spots on your body? Did you break a bone? Breaking a bone in your body is a big problem. It might be your leg, or your arm, or your finger. The doctor will fix the problem. The doctor will set the bone straight and put it in a cast. This will help the bone grow back together. Sometimes your ears might hurt. This is a problem. The doctor can fix the problem. The doctor will give you some medicine. This will solve the problem. Doctors work hard to fix problems. They are very helpful. They take care of people.

**19. Give 1 point if there is evidence that the student paid attention to the structure (max1 point)**

If they use a key word

e.g., problem, solution, solve, fix

OR

If they talk about problems/solutions together

e.g., If you have a hurting ear they will give you medicine.

They give you a cast when you break your elbow.

If you have a broken thing, they'll do something.

The following would NOT get a point:

They give you medicine.

They make you feel better.

They help when your ear hurts.

**20. Give 1 point if every picture is in the correct box:**

(max 1 point)

NOTE: The rows could be switched around (ear and medicine on top and arm and cast on bottom)

Problem	Solution
	
	

NOTE: the responses to the following question could be split over the main question and the back-up questions.

21. Tell the person sitting next to you the problems doctors take care of and how they fix them.

Give 1 point for every piece of information they talk about from the map (max 4 points)

Refer to 0 boxes from map... 0 points

e.g., They're fixing with this and they're fixing with this.

Refer to 0 boxes from map... 1 point

e.g., She hurt her ears.

Refer to 2 boxes from map... 2 points

e.g., They give them some medicine and then when they're sick and when they break their bones.

When someone breaks a bone, they can put one of those things.

Refer to 3 boxes from map... 3 points

e.g., They breaked a bone and hurting ears and medicine.

So, how they fix if you have a broken bone, give them medicine. If you have an itchy ear, give them medicine.

Refer to 4 boxes from map... 4 points



e.g., They fix them when somebody hurts their ear. Give them medicine. If you break your bone we can put something in it.  
Broken bone. Cast. Hurting ear. Medicine.  
 When you hurt your ear and then they fix the problem. And then they break their bones and they gave them something like that (cast) and give them medicine.

NOTE: If a child points to each picture correctly in response to the questions, rather than describe what's happening, please highlight the box on the scoring sheet in blue.

**22. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)**

If they use a key word

e.g., problem, solution, solve, fix

OR

If they talk about a problem/solution together

e.g., When someone breaks a bone, they can put one of those things.

They put a cast when they broke a bone.

Broken bone. Cast. Hurting Ear. Medicine.

The following would NOT get a point:

They give medicine.

They help you feel better.

**How Frogs Grow Text**

**23. Here is my friend Sam. Tell him what you learned about how frogs grow. (max 4 points)**

No information from the text or no response 0 points

1-2 pieces of information from the text 1 points

e.g., They hatch.

Because they grow and then they grow all day into ... and then they grow.

3-4 pieces of information from the text 2 points

e.g., They grow. Tadpoles. They drink water. They tail. They friends w/ fishes.

They lay eggs in the water. They turn into tadpoles and they get legs and they become a frog.

They jump in the water and they put their eggs in the water and they're baby frogs. Then they get stronger.

5-9 pieces of information from the text \_ 3 points

e.g., They hatch. Frogs are black. Look like fish. They grow old. Their legs are strong and they can jump on rocks.

Lays eggs and then turn into something else. Have small legs and dots and they swim.

10+ pieces of information from the text \_ 4 points

e.g., First an adult frog lays eggs. The eggs look like small black dots. The eggs are covered in something that feels like jelly. The frog will put the eggs in water. Next the eggs hatch. Out come tadpoles. Tadpoles are small and black. They look a bit like fish. Tadpoles swim with their tail. Then the tadpoles start to grow small legs. The tadpole becomes a baby frog. Finally, the baby frog will get big. It will become an adult frog. The frog's legs will be strong. The frog will be able to jump on rocks and swim in the water.

**24. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)**

If they used a key word

e.g., first, then, next, after, later, last, finally

OR

If they talked about what happens in a sequence

e.g., They lay eggs in the water. They turn into tadpoles and they get legs

They hatch. Frogs are black. Look like fish. They grow old.

The following would NOT get a point:

They grow big.

They grow. Tadpoles. They drink water. They tail. They friends w/ fishes.

**25. Give 1 point if every picture is in the correct box:  
(max 1 point)**

**NOTE: the responses to the following question could be split over the main question and the back-up questions.**

**26. Use the chart to tell the person sitting next to you how frogs go from being an egg to a frog.**

Give 1 point for every piece of information they talk about from the map (**max 4 points**)

Refer to 0 boxes from chart ... 0 points

e.g., Frogs have strong legs and they jump high.

Refer to 1 boxes from chart ... 1 point

e.g., Egg first. They go in eggs. I already did those things.

Put eggs in the water. They grow big like this. Those are – they're want to go in the water and play over there.

Refer to 2 boxes from chart ... 2 points

e.g., Be they're do eggs in the water and then they are baby frogs and then they get stronger and they jump in the water.

Refer to 3 boxes from chart ... 3 points

e.g., Goes like eggs but black, they grow and look like fish. They grow with legs, and then grow skin and have strong legs and that's it.

They first started hatching and got in the water. First started hatching. Put them in water. They get legs. Then they turn into adult.

Refer to 4 boxes from chart ... 4 points

e.g., The frogs lay eggs and they turn to tadpoles and they start growing legs and they become a frog.

NOTE: If a child points to each picture correctly in response to the questions, rather than describe what's happening, please highlight the box on the scoring sheet in blue.

**27. Give 1 point if there is evidence that the student paid attention to the structure (max 1 point)**

If they use a key word

e.g., first, then, next, after, later, last, finally

OR

If they talk about frog growth in the correct sequence

e.g.: The frogs lay eggs and they turn to tadpoles and they start growing legs and they become a frog.

Eggs in water turn into tadpoles and grow legs.

Put eggs in the water. They grow big like this.

The following would NOT get a point:

They grow strong legs and like to jump.