Winter 1981

THE DEVELOPMENT OF PICTURE-GENERATED STORIES

DINA LEE ANSELMI

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THE DEVELOPMENT OF PICTURE-GENERATED STORIES

by

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B.A., Ithaca College, 1973
M.A., University of New Hampshire, 1977

A DISSERTATION

Submitted to the University of New Hampshire
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No man can reveal to you aught but that which already lies half asleep in the dawning of your knowledge.

The teacher who walks in the shadow of the temple, among his followers, gives not of his wisdom but rather of his faith and his livingness.

If he is indeed wise he does not bid you enter the house of his wisdom, but rather leads you to the threshold of your own wind . . .

The Prophet-K. Gilbran
1923

John, Carolyn, Dan, Mike, Merrill and Jane my wise and supportive committee.

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I want to express my sincere gratitude for helping me begin to reach the threshold of my mind and spirit.
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ABSTRACT

THE DEVELOPMENT OF PICTURE-GENERATED STORIES

by

DINA ANSELMI

UNIVERSITY OF NEW HAMPSHIRE, DECEMBER 1981

Recently, certain aspects of story production, comprehension, and recall have stirred up much interest within psychology. Most of this research has focused on these story processes in adults; less work has been done on the development of story knowledge in young children. This dissertation explored the similarities and differences among nursery school, first and second grade children, and adults. Each individual was asked to produce an oral story after having viewed a set of story-book pictures.

The stories were evaluated on several different dimensions which included: the thoughts, intentions and emotions of the characters, how single elements from the pictures were integrated together, the linguistic terms used to connect events together, and specific aspects of the story descriptions that were given for the pictures.

The results suggested some interesting differences between children and adults. In producing a story, children did not focus on the explicit intentions or
thoughts of the characters as the adults did. The children were much less likely than the adults to integrate the events depicted in different pictures in a systematic fashion. The children also more often linked their story together using temporal terms such as then and now while the adults used either causal connections such as because or the ambiguous connection, and.

Overall, the results suggested there are qualitative as well as quantitative differences in the story schemata used by children and adults. However, there were also certain surprising similarities between children and adults especially in the linguistic features of the story. What remains to be determined is whether the observed qualitative differences reflect a specialized story knowledge or only a more generalized world knowledge.
I. GENERAL INTRODUCTION

Recently, the topic of discourse processing especially story and text structure has generated a great deal of empirical and theoretical research. Literature on this concept intersects many different disciplines such as psychology, education, linguistics and cognitive science. These investigations approach discourse processing from many different levels of analysis depending on the question of interest. For example, one may be concerned with the phonological elements of discourse such as hesitations or use of intonation. Another focus may be on syntax in terms of the correct ordering of words in a sentence, past tense, or reference and coreference. Semantical elements may be appropriate for study in that the speaker must choose understandable words for expression. On a cognitive level, memory is important for the processing of discourse information (in terms of production, comprehension and retrieval). In addition the psycholinguistic relationship between the speaker (writer) and listener (reader) may be involved. Higher level units beyond individual sentences such as propositions, linguistic connectives, and the cohesiveness of events can also be of considerable concern.

These issues are an indication of the complexity
of this topic and there has not always been a great deal of overlap among the investigations of these questions. In cognitive psychology and cognitive science there has been much work dedicated to the development of structural models of discourse such as story grammars that represent idealized versions of how individuals process specific kinds of discourse information. Educators have been specifically concerned with discourse as a way to understand the processes of reading and writing. Many linguists have tried to capture the critical elements in discourse in terms of syntactic and semantic categories. These different approaches are in fact understandable given both the different interests and traditions within the various disciplines. Hopefully in the final analysis, research from all these areas will bear on the problems of accounting for a speaker/listener's knowledge of production and comprehension of various types of discourse.

As the emphasis of this dissertation is on describing what children know about stories, the focus will be on the discourse process of stories. The specific empirical and theoretical aspects of the story grammar approach will be presented, along with the relevant developmental work. The general developmental issue is whether any differences in children's understanding of stories reflects more a quantitative or a qualitative difference. In addition, the psycholinguistic issue of reference, how it develops and its use in stories will be examined.
One of the first researchers to deal with the process of discourse was Bartlett (1932) in his now classic book Remembering. In one of Bartlett's experiments, individuals were given a folk-tale, The War of the Ghosts, and asked to recall the story at various periods of time. His major finding was that the subject's story recall was generally not an exact reproduction of what they had read. Various kinds of recall errors occurred, the most interesting of which he labelled as assimilation errors. In these types of errors, the individuals changed parts of the story to fit their interpretation of the information. From results of this type, Bartlett proposed that memory is basically a reconstructive process which reflects how information fits into an individual's schemata. The accuracy of this reconstructive process at recall time will in large part depend upon the correspondence between incoming information and the schema for representing that information. In the case of The War of the Ghosts story, there were many elements within the story that did not fit the cultural expectations of Bartlett's subjects and those were the parts that tended to be assimilated.

Recently, as memory research has refocused on stimuli such as stories, many of Bartlett's ideas are regaining popularity. The notion of schema, for example, has been applied to the work on story structure to account
for the set of expectations that describe our knowledge of stories (Mandler & Johnson, 1977). Several researchers (Stein & Glenn, 1979; Kintsch & van Dijk, 1978; Mandler and Johnson, 1977; Schank & Abelson, 1977; Thorndyke, 1977; Rumelhart, 1975) have attempted to specify our intuitive ideas about stories in terms of idealized story grammars which specify the rules we have about such expectations. While there are differences in the structural descriptions among these various story grammars, they all share certain commonalities about narratives, such as information about setting, plot, characterization and elaboration.

In order to illustrate these various components, the story grammars proposed by Mandler and Johnson (1977) and Stein and Glenn (1979) will be presented. For the most part, these two grammars are similar and employ many common terms so a general description, treating them as one, will be given. These story grammars are particularly relevant because they have been used in a number of developmental studies and therefore provide some information about how children recall stories.

Story structures in these "grammars" have six basic nodes. These nodes specify a set of informational categories and intercategory relationships which are in part defined as an episode. The first category is the setting which states the context of the story in terms of time and place. Setting statements are not part of the episode as they do not describe causal relationships between the
other nodes within the story. As will become obvious, all
the rest of the categories are causally related to one
another. The second category, the beginning statement
deals with events that occur to elicit a response from the
character and therefore start the plot. The reaction of
the character to this initial event which is the third
node, usually involves statements about plans, goals or
emotions to deal with the event. The fourth node involves
the attempt to carry out the goals through specific
actions. In the fifth node, an outcome occurs which
reflects the attainment of lack of accomplishment of the
goal. Consequences lead to the final node, the ending of
the story. This category involves the character's reac-
tions to the story situation (affective feelings about the
situation). Except for the setting, each node follows
a logical sequence. Table 1 illustrates the six components
in a simple story, how they follow from one another, and
an example of each category based on the Peter Story.

In the Mandler and Johnson system, each basic node
can have several extensions that are related to the re-
write rules for a simple story grammar. The key component
that defines a simple story in this system is that in each
episode there is only one main character. The surface
structure of the grammar is represented by the sentences
of the story but there does not have to be a direct
correspondence between a sentence and a terminal node.
All terminal nodes (the highest level of description in
Table 1a

| Six categories of story information with an example of a simple story. |
|---|---|
| Setting | This is a story about a boy named Peter, who lived on a big farm. |
| Initiating Event/Beginning | One day, Peter saw a story in the newspaper about a circus. |
| Goal/Internal Response | He decided that he really wanted to go so he started off for town. |
| Attempt | A couple of hours later, Peter got to the circus. |
| Outcome/Consequence | He was happy with everything he saw. |

a Adapted from Glenn (1978)
the story) are either state or event statements which are only described in very general terms. States refer to either external conditions or internal feelings. Events include external actions of the character or internal plans, thoughts and goals. These nodes are connected by three types of relationships: AND (states); THEN (events) and CAUSE. AND and THEN generally connect states and events in various temporal orderings. CAUSE refers to a relationship in which the first node directly influences the occurrences of the next event. While there is no restriction of physical causation (i.e., necessary and sufficient) in this relationship, CAUSE is a more directive connection than either AND or THEN.

Story grammars can be expressed either as a series of rewrite rules or a tree diagram, both of which specify the hierarchical arrangements of elements within the story. Table 2 presents a summary of the rewrite rules for a simple story grammar. According to the rewrite rules, the basic nodes contain varying numbers of terminal nodes and can be reduced to the six categories previously delineated: setting, beginning, reaction, attempt, outcome and ending. Episodes are generally connected by the THEN relationship which can allow for complex arrangements within stories.

One interesting claim about these story grammars which has important developmental implications is that certain propositions may not always be present in the story structure and therefore have to be inferred by the
Table 2a
Summary of Rewrite Rules for a Simple Story Grammar

Fable → Story And Moral
Story → Setting And Event Structure

Setting → \{ State* (And Event*) \}

State* → State ((And State)*)

Event* → Event (( And Then Event( Event(*)(And State)*) Cause)

Event Structure → Episode ((Then Episode)*)
Episode → Beginning Cause Development Cause Ending

Beginning → \{ Event* \}

Development → \{ Simple Reaction Cause Action Complex Reaction Cause Goal Path \}
Simple Reaction → Internal Event ((Cause Internal Event*)
Action → Event
Complex Reaction → Simple Reaction Cause Goal
Goal → Internal State

Goal Path → \{ Attempt Cause Outcome Goal Path (Cause Goal Path)* \}

Attempt → Event*
Outcome → \{ Event Episode \}

Ending → \{ Emphasis Episode \}

Emphasis → State

a From Mandler and Johnson (1977)
story reader (listener). For example, simple and/or complex reactions in terms of the character's responses or thoughts are often only vaguely specified and the reader must make inferences about such responses based on both the context of the particular story and their general world knowledge. A child's view of stories may not include information about a character's motivational, cognitive and dispositional states. It may be only after a child develops new systems of cognitive, linguistic and social knowledge that changes in story schema will occur (McConaughy & Fitzhenry-Coor, 1980). The problems in discriminating quantitative from qualitative changes in such grammars are self-evident.

As previously indicated, there are several current story grammars and a larger number of potential ones, as there is no universal definition of a story. Individuals may be able to classify in a very general way what are stories and nonstories, but fine-tuned details about story structure are more difficult to generate (Mandler & Johnson, 1977). As a theory of sentence grammar has not been totally successful, it may be considered optimistic to expect a reasonably adequate and psychologically valid story grammar. Story grammars do make several predictions about how individuals will encode and recall story information and these predictions can be used to test some of the hypotheses about the psychological reality of these grammars. However, one must be careful not to assume that
these predictions alone provide explanatory adequacy.

While there are numerous predictions that can be made concerning these story grammars, only several relevant ones will be presented (see Mandler & Johnson, 1977, or Stein & Glenn, 1979, for more details). In terms of the accuracy and extent of recall, when the surface structure of a story and the ideal story grammar are similar, recall will be better than cases where it is not. The Basic Node is considered the main unit of recall and depending on what information is in a node, recall will be affected. For example, when the node contains optional information such as a reaction statement, this category will not be recalled as well as non-optional categories. Episodes with causal connections will be better recalled than those with temporal connections. In regard to inversions of sequence, as the surface structure of the story has Basic Nodes in other than the typical canonical order, recall will be poorer. That is, memory for a story will be optimal when the surface structure and the ideal structure match. Finally, additions and distortions will occur in cases where there is ambiguous information. When information from Basic Nodes such as Reaction Statements are missing and therefore need to be inferred, additions will occur. On the other hand, distortions will occur in regard to ideas that do not conform to the ideal story structure.
Some of these predictions have been supported by research findings. Thorndyke (1977), using a story grammar based on Rumelhart's system investigated the effects of thematic organization on recall and comprehension ratings in adults. In cases where the theme statement was moved from its ordinary position (in the beginning of the story) to the end of the passage, both recall and comprehension were poorer than for the normal story condition. Recall was the poorest when there was no theme for the passage. These findings support the notion that recall will be poorer as the surface story structure moves away from the ideal structure in terms of thematic organization.

Inversions of sequence also occurred when the stories were disorganized with theme recall moving closer to its typical story position. Similarly, Kintsch, Mandel and Kozminsky (1977) found that adult readers can reconstruct the appropriate order of the events of a story that have been scrambled if the story fits their pre-existing schematric organization. However, Baker (1978) presents contradicting evidence for the idea that adults tend to reorganize the temporal information inputs to conform to the canonical story order. She found that decisions about input order (real time) were easier than decisions about underlying order when the stories contained flashbacks. Because it was found that people are better at making decisions on the basis of input order rather than underlying order, Baker argues against the hypothesis that story reorganiza-
tion is part of an individual's story schema process.

In terms of which parts of the story are better recalled, Mandler and Johnson (1977) and Stein and Glenn (1979) found that for both children and adults, settings, beginnings and outcomes are generally recalled better than attempts, endings and reactions. In the four stories used by Mandler and Johnson (1977) inversions occurred infrequently but when they did, the majority of them were between AND and THEN connections (temporal) rather than CAUSE propositions (causal connections). These findings support the general predictions of which categories of the episode will result in superior recall. Glenn (1978) also found better recall for the Event and Consequence categories. In her study, she examined the role of episode length and structure, finding that as episode length increased, the amount of information recalled increased and with no effect on story organization (the number and type of categories recalled remain constant).

These results indicate that there is a certain amount of data to support the claims of several of the current story grammars. However, as with any new idea, story grammars have not gone without critical review. Black and Wilensky (1979) evaluated the story grammar approach on three different dimensions and found it to be an inadequate model. One problem with most of these grammars is that they are inadequate formal models of a grammar
because they lack many of the essential transformational rules in their structural analysis. Secondly, an empirical assessment of story grammars indicates that they do not adequately discriminate between examples of stories and nonstories. The grammars reject some valid stories and accept certain nonstories.

Third, as models of story comprehension, story grammars must rely on semantic definitions to assign a particular proposition to a specific story category as the syntactic rules do not provide sufficient information for this formulation. However, these story grammars are based on syntactic rather than semantic relationships.

This issue presents a problem for trying to assess individuals' self-produced stories. It is difficult to know how to classify the various propositions in a person's story. For example, a particular statement may be either an internal response or a reaction statement depending on its relationship to other statements in the story. However, such hierarchical relationships are often hard to discern. An alternative advocated by Black and Wilensky (1979) involves focusing on the knowledge structures that people use in comprehending various types of discourse.

Other problems that exist with story grammars involve dealing with multiple protagonists and multiple goals. In particular, many stories involve interactions that occur among characters in achieving certain goals in terms of inferred intentions, thoughts and feelings (Bruce, 1980).
Story characterizations of this nature require going beyond the structural descriptions of a single episode unit which focuses on only one character action at a time. The notion of character beliefs, especially those that need to be inferred, may reflect differences between children and adults in understanding a story.

Developmental Research on Story Knowledge

While story grammars have provided some information on how adults may comprehend stories, the question of how well these models represent a child's understanding of stories is an important area of investigation. There is some evidence to support the hypothesis that children's knowledge of narratives parallels that of adults (Mandler & Johnson, 1977; Stein & Glenn, 1979; Poulsen, Kintsch, Kintsch & Premack, 1979), but other evidence points to the fact that children may conceive of a story in a quite different manner which may reflect basic differences in cognitive and social skills (Mosenthal, 1979; McConaughy & Fitzhenry-Coor, 1980; Applebee, 1978). Recall, summarization, and production tasks can all be used to evaluate how a child organizes various aspects of a story. Each of these tasks involves somewhat different strategies and may therefore provide distinct estimates of what aspects of a story children understand. While most of the developmental research in this area involves recall performance, more information is now coming in from the other tasks. As several different lines of research bear
on the developmental issues of story schema, various studies will be presented to examine whether there are qualitative as well as quantitative differences in story understanding.

Mandler and Johnson (1977) tested first and fourth grade students and adults on their recall of two stories. The results indicated that in general, the adults recalled more than the children, but the ordering of recall for the basic story nodes was similar for all groups. This suggests that the children's schemata for organizing the story information during retrieval operates in much the same way as the adults'. The differences that did appear were reflected in the outcome, attempt and reaction categories. The children, especially those from the first grade, seemed to place greater emphasis on outcomes than on either attempt or reaction statements. Stein and Glenn (1979) found very similar results. Children differed from adults in the amount of information they recalled but not in either the type of or the temporal ordering of the statements they recalled. In addition, in a probe study that asked questions about the structural components of the story, internal responses were seen by the children as a critical story element even though these responses were poorly remembered in recall tasks. Dent and Thorndyke (1980) claim memory deficits in terms of encoding strategies accounted for the developmental differences they found in their study rather than knowledge of story structure.
In both free and cued recall tasks, all age groups remembered the thematically related proposition best.

Several studies have focused on children's production of stories as a way of obtaining information about how children's story schemata operate. Stein (1979) tried to assess the level of structure complexity and the schematic content that children utilize when telling a story. She used a cued production task in which kindergarten, second and fourth grade children were given goal, consequence or setting information to help them formulate their stories. One half of the children also received contradictory information with their cue while the other half received complimentary statements. Her hypothesis was that the contradictory information would increase the probability of complexity in a story. She found that the contradictory information did not affect the age groups in the same way. Older children because of their already developed knowledge of character motives and dispositions did not produce longer versions with the contradictory cues, whereas younger children did. In addition, receiving goal or consequence information helped the children produce more overall story information. These results indicated that while younger children are more sensitive to task demands they can produce story statements about goals or motivations of sufficient complexity when provided with certain prior information.
Both Day, Stein, Trabasso and Shirley (1979) and Poulsen, Kintsch, Kintsch and Premack (1979) used a different method to study story production by showing children a sequence of pictures and then asking for descriptions of those pictures. In the Day, et al. (1979) study, pre-school and second grade children were shown six pictures in a linear sequence and told that if they described each picture, they would know the story depicted by the sequence. The pictures were presented in two different orders: a normally ordered sequence (pictures judged by adults as forming a well formed, coherent story episode), and a consequence moved sequence (where picture 5 was placed after picture 2). The results from the normal sequence condition showed that the percentages of children giving the modal description (most frequently occurring statement for a picture) ranged from 40% (the setting picture) to 75% (second consequence picture) for all the pictures. Additionally, these modal descriptions seem to contain the components of a well structured story. In the consequence-moved condition the majority of children (60%) gave the same modal description for Picture 5 as was obtained in the normal condition. However, the consequence moved children produced more overall story elaborations, presumably in an attempt to explain how this picture fit into the general story sequence. When the children were asked to recall their original descriptions, the children in the consequence-
moved condition, tended to remember less information than the normal condition and to reorganize their statements to fit the expected structural sequence. These findings suggested that the children were using an internalized story schema similar to adults' in encoding, producing, and retrieving story descriptions about the pictures. The results also provide some indication that at least for certain types of pictures, the strategies used to abstract story information from pictures is similar to those used in the verbal domain. One point that is not explained in their study is the variability in modal responses across the picture types in terms of the structure components of a story. For example, the setting statement is given by only 40% of the children whereas on recall tasks, settings are one of the most frequently occurring nodes. The modal description for the reaction statement is higher (58%) yet reaction statements are usually the poorest recalled information.

Poulsen, et al. (1979), showed 4 and 6 year old children 4 stories with 16 pictures each and asked them to describe each picture. In the normal condition, pictures which told a well-structured story (although it was not clear how this was decided for the pictures) were presented. In the scrambled condition, the same procedure was used except that the pictures were randomly ordered. The results were analyzed in five different ways, based on the story grammar of Kintsch and van Dijk (1978).
Three of these will be discussed below. In the first case, propositions from the story were classified as "core", "extra", or "spurious". These classifications were based on the results of adults who had been asked to describe each of the pictures in a sentence or two. Core propositions were based on responses given by the adults which described the pictures, while extra propositions were correct descriptions of the pictures not generated by over half of the adults. Spurious propositions represented incorrect responses in terms of picture descriptions. The results indicated that the scrambled vs. the normal condition affected the type of proposition generated. In the normal order, more core and less spurious propositions were produced, whereas in the scrambled condition, the number of spurious propositions became higher and agreement with the adult responses decreased.

The second classification described three types of propositions; picture (involving a feature of the picture), story (involving an understanding of the story beyond one picture), and narrative (extraneous from either pictures or story). These results showed that in the scrambled condition, story propositions were about equally distributed across core, extra, and spurious. In the normal condition, the responses were mostly core propositions. There were also more narrative statements produced in the scrambled as opposed to the normal condition.
In the third classification, descriptive propositions were distinguished from cognitive or affective ones and it was found that there were more spurious cognitive/affective responses in the scrambled than in the normal condition.

Based on these analyses, Poulsen, et al. (1979) state that the children's story descriptions were differently affected by whether the pictures were in a normal or scrambled order. They claim, "The children not only describe what they see in the pictures, but tell what it means in terms of the story as well, thus providing clear evidence of their ability to comprehend stories, and indirectly of having acquired an adult-like story schema upon which this comprehension is based" (p. 398). However, conclusions of this nature seem unwarranted from the data they present for three reasons. First, according to their analysis, children have trouble dealing with the scrambled stories but adults do not. (They did not include adult responses for the scrambled order because of their informal analyses that indicated that adults had little trouble reconstructing the normal order.) In this case the schematic organization of children and adults does not seem similar. Additional support for this ordering difference comes from Mandler and DeForest (1979) who found that while everyone had trouble recalling an interleaved order, (episode categories were mixed together), children were worse than adults and the younger
children were essentially unable to recall the stories in any other than their canonical form.

Secondly, there is a certain inconsistency in trying to understand the development of story schemas by using adult responses as the basis of classifications for the children's descriptions. Each group's responses should be classified and compared to see if children (perhaps of different ages) describe stories in different ways than adults. Using adult protocols only serves to mask any significant differences between children and adults and falls short of adequately describing a child's story schema.

Finally, the approach taken in their article assumes that the definition of a story is always verbally based in that they did not consider the effects of the pictures on the stories that the children generated. It seems just as reasonable to suppose that young children's story schemas contain information about picture stories as well as verbal stories. It is possible that children could generate a number of different verbal stories for any set of story book pictures. To suggest such a narrow definition of story, given children's initial experience with stories, may not allow for meaningful descriptions of children's story schemas.

A number of other researchers have examined children's processing of narrative sequences and have
found various kinds of differences between adults and children and between various ages of children. Piaget (1969), from his work on children's recall of stories, claimed that younger children (in the pre-operational stage) have trouble reconstructing the appropriate order of events, especially in terms of temporal sequencing, confuse cause and effect relations and demonstrate egocentrism (in pronoun usage). It has been argued (Mandler & Johnson, 1977; Brown, 1975) that Piaget's use of recall tasks may place unreasonable demands on young children, and therefore underestimate their ability to understand the appropriate temporal ordering of events. In addition, the stories that Piaget used in his studies can be viewed as particularly ill-structured in regard to the temporal and causal ordering of events. This poor structure may place a heavy burden on the child's processing capacity rather than reflecting any basic differences in story schemata. In Brown's study (1975), kindergarten children could recognize and reconstruct the correct sequences, but had difficulty in providing the appropriate order during recall.

Mosenthal (1979) classified children according to the type of schema they used and found that this factor was related to how well they recalled various kinds of passages. His results showed that children who expected a theme to occur first in a passage recalled more propositions when the theme was in that position, than children
who expected it to come at the end. The converse effect also occurred; children classified as having a final theme orientation recalled more than children with a beginning theme orientation with passages that had the theme at the end. Children who had no theme preference did about the same in recall for either type of passage. He also found that children tended to recall the theme propositions in the same order that their schematic structure would predict (i.e., theme initial schema children recalled the theme first 71% of the time while theme final children recalled it first only 6% of the time). These results can be used to argue for the fact that ideal story grammars, as postulated for adults may not be valid descriptions of children's story schema.

Protocols from the stories of children collected by Pitcher and Prelinger (1963) show that many dimensions within the stories change with age (e.g., egocentrism). Applebee (1978) analyzed the stories of Pitcher and Prelinger (2-5 years of age) along with additional stories produced by 6, 9, 13, and 17 year olds. He found a developmental sequence for many story features. The use of a consistent past tense seems to develop first, followed by formal beginnings (e.g., once upon a time) and finally formal endings. The structure of stories in terms of thematic organization and relationship between events undergoes extensive changes during childhood.
Stories start off as "heaps" which involve several events or characters connected only by temporal or spatial proximity rather than thematic variables. Next to develop are "sequences" where the connections are based on similarity between events that eminate from a central point. A "primitive narrative" is the next step and is composed of story situations that involve complimentary processes surrounding a central core. The "unfocused chain" is the next story type to develop. In this category events directly relate to one another but there is continual shifting of characters or events. This type of narrative lacks a central perspective from which interrelations can stem. The "focused chain" has a concrete center which links together the sequence of story events. The final category to develop is the "narrative" in which the story has a theme or moral, is goal directed and the bonds relating elements together are abstract and conceptual rather than concrete and perceptual. The first three narrative categories are more prevalent among younger children (pre-school) and the last three types are more representative of older children. Likewise, Botvin and Sutton-Smith (1977) have shown that structural complexity in fantasy narratives increases with age in a similar fashion to the development of linguistic structures (level of structural complexity was scored in terms of how the narrative developed in aspects such as plot and characterization).
Recently, McConaughy and Fitzhenry-Coor (1980) have postulated a developmental model to account for story comprehension. They argue that there are three different story schemata that represent children's comprehension of story information at different developmental levels. The first type is called a simple descriptive schema and includes the basic temporal ordering of explicit actions and events in the story. The highest nodes of this schema are setting, initiating event, and resolution information with the attempt and outcome categories lower in the hierarchy. The connections between categories are THEN and AND as these stories are mostly ordered events. The simple descriptive schema is most representative of younger children. The second type of schema deals with causal inferences and focuses primarily on physical causality. These inferences occur when story comprehension includes implicitly expressed statements (e.g., character reactions). The descriptive schema nodes are included in the causal inference schema but are reorganized under a higher node called "plot". The sequence of events and actions in the story are therefore connected to more abstract propositions. The CAUSE connection with terms like because, so and as a result is now part of the semantic content of the story. The social inference schema represents the most well developed level of story comprehension. Social inferences specify the thoughts, feelings, or intentions of the
characters and provides motivational explanations for various actions that occur in the story. This type of schema involves psychological causality rather than just physical causality and is representative of the story grammar schemas that have previously been discussed. Categories such as internal responses or reactions are added to the plot sequence in terms of a character goal. The MOTIVATE rule becomes a part of the semantic connections of the story. The social inference schema includes information about why characters intend to engage in certain behaviors, but can go beyond that type of description to account for what makes up intentional behavior in terms of dispositional traits. This model strongly suggests that more attention must be directed at understanding how children process all types of story information and highlights the importance of inferences in story comprehension.

Research on inferential skills has shown developmental differences but whether they represent qualitative of quantitative change is open to interpretation. Omanson, Warren, and Trabasso (1978) found that while 8 year old children made more inferences than 5 year old children the type of inferences were similar. The authors identified three general types of relations in terms of inferences that can occur in narratives: a) logical inferences which deal with motivations and psychological causes; b) informational inferences which provide facts
about spatial/temporal, pronominal, referential and
general world frame relationships; and c) evaluative
inferences which deal with moral and social judgments.

On the other hand, Flapan (1968) and Piaget (1965)
claim that children of different ages approach issues of
intentionality in quite distinct ways. After viewing
several films, children (6 to 12 years of age) in Flapan's
study were asked a series of questions about what they had
seen. Flapan found that older children produced more
responses dealing with inferences about the character's
motives and feelings than did the younger children.
Piaget's work (1965) on children's games showed that
young children are more likely to focus on the consequences
of an action rather than on its intention.

However, Berndt and Berndt (1975) and Bearison
and Isaacs (1975) found that first and second graders
used both motives and intentions in making moral judgments
if those motives and intentions were explicitly stated.
Similarly, in Flapan's study, young children could give
thought and feeling statements that were obviously
presented in the films. It appears that children have
trouble making inferences about intentions but they may
have some basic notion of what intentionality may involve.

In summary, while some studies have showed that
different ages of children and adults seem similar in their
use of story schemata, other studies have demonstrated
significant differences between different ages of children
and adults. Some of these differences involve schematic structure, inferential skills and temporal ordering of events. While several studies have sued pictures as a way of exploring story knowledge, they have not explored the possibility that children and adults may differ in how they process pictorial information in the operation of a story schema. While there is no data that directly addresses that issue, studies that deal with memory and comprehension for pictures may provide some general information about children's processing abilities.

**Picture Memory Research**

Recognition memory for complex pictures has been studied and the results demonstrate that both children and adults can recognize with considerable accuracy (over 90% correct) pictures that have been previously presented to them (Brown & Scott, 1971; Standing, Conezio & Haber, 1970). However manipulation of the type of distractor pictures used in the memory test can substantially impair recognition (Mandler & Stein, 1974). In addition, memory for organized vs. unorganized pictures follows a similar pattern to verbal stories in that children are poorer than adults at recognizing changes in either of these types of pictures (Mandler & Robinson, 1978). However, children are better at remembering the organized pictures as opposed to the unorganized ones.

Previous work by the present author (Anselmi & Limber, 1978) provided some general findings about picture
memory abilities of children and adults using a picture story format. In that study, children (5 years old) and adults were shown a series of pictures that formed a story sequence. Half of the children and adults were given a corresponding verbal story to listen to while viewing the pictures, while the other half just viewed the pictures. A picture recognition was later administered with three types of test pictures included: one category involved pictures that had items deleted from then that had been mentioned in the verbal story (relevant), the second category involved pictures that had items deleted from them that had not been mentioned in the verbal story (irrelevant), the final category consisted of old pictures that the individual had previously seen (old). The results demonstrated that children were poorer at recognizing irrelevant changes when they received the corresponding verbal story as opposed to when they did not. On the contrary, adults did better at recognizing relevant pictures when they received the story than when they did not receive a story. The findings suggest that adults and children process the information from the verbal story and pictures in a different manner and that children have difficulty in recognizing certain pictorial changes when a story is given.

In contrast, several studies in the educational area have indicated that children's memory for narratives can be enhanced by certain types of pictorial cues or imagery
instructions (Ruch & Levin, 1979; Guttman, Levin & Pressley, 1977). At the present time it seems unclear what precise role pictures and words play in the development of a child's cognitive abilities. However, there does seem to be some relationship and an exploration of children's conception of stories may provide an answer. As children's stories almost always involve both a pictorial and a verbal component both of these dimensions may be salient for a child's story schema.

Research on Children's Use of Reference

Most story grammars do not typically assess the specific linguistic representation of information in a story. Rather they focus on the internalized schematic representation of the underlying structure of the story. The deep structure of a story is composed of the "syntactical" categories and semantic connections outlined in previous parts of the literature review. As the idealized story schema used to understand a story operates from the deep structure, the exact syntactic form of the story is not seen as critical.

In studying children's reordering of different forms of a story, McClure, Mason and Barnitz (1979) found that many surface text features, such as verb tense, ellipsis, pronominalization, conjunction and deictics were ignored in rearranging the stories from a scrambled form. Other features such as lexical ties and phrases (e.g., there was, finally, one day) were noticed. They argued that these
findings provide evidence for the importance of propositional aspects of the story over syntactic elements. However, one issue that is not resolved in this study is whether the children's poor recognition of these syntactic features represents their lack of knowledge of how specific syntactic elements operate in stories as opposed to the operation of a propositional story schema.

When an individual constructs a story, that person must communicate the appropriate referential relationships in order for the listener to understand the meaning of it. Many different types of words can be used to convey reference. In a narrative, the use of the conveys to the listener that there is a specific referent to be communicated and that presumably the listener understands who or what the referent is. For example, in the statement, The pig ran, the specific referent of the pig is assumed to be comprehended by the listener because of some previous or current (e.g., pointing, looking at) context.

This situation can be contrasted with the use of an indefinite article such as a where the story-teller (writer/speaker) may want to signify the presence of a specific but as yet indefinite individual (One day, a pig was going camping) or a nonspecific and indefinite object, The pig does not have a tent (which in this case is assumed not to exist). In the situation of specific indefinite referent, the intended referent is known to the story-teller but must be made clear to the listener
(Maratsos, 1976).

After the introduction of the pig with the indefinite article, several terms such as, the pig, that pig, he, him, may subsequently be used to identify the character to denote sameness or unity. This process is termed discourse referent (Karttunen, 1968).

Many times in narratives certain concepts are first introduced with a definite referent (A pig was walking down the road). Various structural analyses have attempted to account for such occurrences. Jespersen (1949) postulated three stages of familiarity/unfamiliarity to explain the use of definite and indefinite articles. Stage one includes completely unfamiliar terms so that the null case (no article) or an indefinite article is appropriate. In the second stage almost complete familiarity with the term exists, either by the context or the whole situation. The article the is used. Familiarity is so complete in the third stage that no article is necessary as in cases of direct address, proper name or familiar meaning (town, dinner, father). A similar breakdown devised by Christophersen (1939, cited in Yotsukura, 1970), claims that the main function of definite and indefinite articles is to convey familiarity and unity. Definite articles signify extralinguistic reference and therefore familiarity while indefinite articles involve unity of purpose and are neutral to familiarity. The familiar function has three components:
a. situational context
b. explicit context (previous linguistic reference)
c. implicit context (shared perspective between speaker and listener)

Another situation that involves the use of definite reference is entailment. In this case, the mentioning of one referent logically entails another referent (Karttunen, 1968). In the statement, He climbed up a tree to the top branch, the branch is entailed from the property of trees.

In addition to structural accounts of the article system, transformational theories have also been interested in the role of determiners for formal description. There are several conflicting theories of exactly how to represent definite and indefinite articles in a deep structure (Perlmutter, 1970; Postal, 1970; Gough & Chiaraviglio, 1979; Thorne, 1972). The particulars of these accounts are beyond the scope of this review.

In all these cases, the relationship between the listener and the story-teller is critical. This situation is an example of any speaker-hearer conversational system. The speaker makes certain assumptions about the listener's knowledge and lack of knowledge. In a typical conversation if a referent is unclear, the hearer may ask for clarification. In discourse situations, this is not always possible so the story-teller (speaker) must be especially careful about not confusing the listener with unclear or ambiguous referents. The clarification procedure is
particularly critical with context dependent definite terms because the story-teller is making certain assumptions about the cognitive and linguistic knowledge of the reader.

From a developmental perspective, the problem for the child in choosing a referential term, is to determine the listener's frame of reference. Studies by Piaget (1955) showed that young children (pre-operational) used referential terms such as definite articles, pronouns and demonstratives in an indiscriminate manner when relating information which demonstrates their conversational egocentrism. Similarly, Krauss and Glusksberg (1969) found that younger children (pre-school and early grammar school) had difficulty effectively communicating ideas through a physical barrier. However, both Shantz and Gelman (1973) and Maratsos (1973) found that under certain circumstances, children can alter their conversation to the perspective of the listener. Therefore, it is unclear whether children have the same understanding of the story-teller/listener relationship as adults.

Articles, demonstratives and pronouns act not only as determiners for particular noun phrases, but also can denote relationships between phrases (coreference) and sentences (anaphora). These referential terms act as reducers of linguistic structure and operate with the assumption that the listener understands the original referent. For example, in the sentences, *The pig's tent*
blew away up a tree. He climbed up to get it, it is an anaphoric reference for, the pig's tent. However, the success of this relationship depends heavily on the ability of the listener to understand the reference of it to his tent (Karmiloff-Smith, 1979). These kinds of referential processes are powerful forces in discourse, in that they permit the story-teller to convey new information and relate it to previously established ideas without having to repeat all of the old information.

Several empirical studies have been conducted on the acquisition of various determiners in children. Maratsos (1976) tested 3 and 4 year olds on several different production and comprehension tasks to assess the usage of definite and indefinite articles. One of his paradigms was a story-telling situation in which certain characters were mentioned and at the end of the story the children were asked a specific question to elicit the appropriate definite or indefinite referential term. In one story, the children were told about a monkey or a pig who were having a race which one of them won. When asked the question, Who won the race?, the appropriate answer should involve the use of the (monkey or pig) in order to specify an already known referent (as opposed to a monkey or a pig of unknown origin). Maratsos' results revealed that specific and nonspecific referential knowledge is established quite early in that both 3 and 4 year olds performed significantly better than chance on his tasks.
Knowledge of the importance of the listener's perspective in using reference was not demonstrated convincingly by any group except the advanced 4 year olds.

Maratsos' results contrast with those of Warden (1976) who found that while adults could identify new referents before they are expressed in a definite form, children tended to use a definite referent whether or not the referent had been previously identified. In addition, only the 9 year old group of children was sensitive to the listener's perspective. Warden's tasks centered around the introduction of a new referent into a discourse and the use of the definite article to refer to an already known referent. Such tasks focus on identification of referents rather than their naming and have definite applicability to the study of reference in stories. In particular, one of the functions of reference in discourse is to introduce to the reader particular characters, objects, or concepts and to do so in as unambiguous a manner as possible.

In an extensive series of experiments, Karmiloff-Smith (1979) studies many different aspects of children's use of determiners. In her view, because the determiner system involves referential terms that serve a multitude of functions, the development of such knowledge is a complicated process. In addition she believes that this process involves linguistic as well as cognitive factors. In general, her results indicate a developmental sequence.
in which children gradually learn the different functions of referential terms. In the first stage (3-5 years of age) children use a variety of determiners which on the surface appear complex, as in the use of anaphoric referential devices. A closer look at the functions these words serve for the children indicates that the referential terms may often be acting as descriptors (words used to add information about already identified referents) rather than as determiners (words used to introduce referents from many possibilities) and that even when the words act as determiners of concepts only one specific function is recognized.

The second stage (5-9 years of age) involves children often engaging in overgeneralization (adding redundant markers) or creating certain ungrammatical forms to keep clear the dual uses of determiner words. These types of utterances suggest that the child is trying out various linguistic strategies for understanding and producing determiners in their pluristic function.

By the third stage which goes from 8 to 12 years of age, children can use the determiner system in a pluristic manner, recognizing that they have many different choices in expressing an idea in a particular context. These stages point to the fact that depending on the child's level of understanding of the functions of reference, the difficulty of their task in producing a coherent story
should vary. The evidence on children's understanding of reference indicates that at least on certain dimensions (e.g., introduction of a new referent, coreference and anaphora) linguistic as well as cognitive factors will affect their understanding and production of stories. Therefore, an explanation of how reference functions in stories seems critical for developing a theory of how children and adults understand story information.  

Theoretical Aspects of a Child's Story  

A typical children's story may be characterized as a temporally parallel sequence of events that is connected together by the use of various linguistic terms. One sequence involves events which are ordered in terms of individual sentences and the other sequence which is ordered in terms of individual pictures. The temporal ordering of events in a story involves both real and story time. Real time reflects the specific ordering of the picture sentences. Story time reflects the events which occur in the sentences or pictures according to the meaning of the story. Within this parallel sequencing of pictures and sentences, there are three relationships which exist; intra-picture or intra-sentence elements, inter-sentence or inter-picture relationships and inter sentence and picture connections. Elements within (intra) either a picture or a sentence relate to the spatial arrangement of objects in the picture and the syntactical arrangements of words in the sentence. The inter-sentence or inter-
picture relationship reflects the layout of the story as defined by either the picture or the sentences. Verbal stories seem to be organized in a way that the individual sentences are not as important for memory as the overall structure (Mandler, 1978). The same is probably true for picture story sequencing. Finally, the interconnection between sentences and pictures may give an overall meaning to the story as a result of the interaction of the two factors.

What is needed in assessing a child's story is a grammar that accounts for both the linguistic and the pictorial aspects of the story. While researchers have specified several verbal story grammars, the attempt to apply this approach to pictures has met with great difficulty (Biederman, 1977).

Integrating the pictorial and verbal components of a story into a precise model of comprehension and memory is an unrealistic goal given the present level of both theoretical and empirical work on perception and linguistics. Descriptive studies that systematically explore how children generate, comprehend, and remember both pictorial and verbal story sequences are needed to provide the basis for such theoretical explanations.

**Statement of Purpose**

Several issues emerge from the preceding literature review that provide a rationale for the studies conducted in this dissertation.
One issue focuses on the developmental aspects of story knowledge. While various theories of story grammars have attempted to characterize how an individual comprehends and remembers a story, generalizing such theories to explain how a child understands a story is highly questionable. Many of the studies previously mentioned show that at least on certain dimensions, children and adults do not use the same story schema. In fact, by asserting that a child's schema operates simply as a less mature version of an adult's schema, the structural aspects of the story grammar analysis may mask potential developmental differences. Additionally, story grammars do not appear to account for how children develop their knowledge of story narratives. For example, children are typically exposed to a range of different types of stories at a very young age, many of which do not conform to an ideal story grammar form. Often a child's initial contact with stories is through both pictorial and verbal forms. From these varied experiences, children must abstract out the important aspects of a story to form a schema. In order to provide an adequate developmental model, story grammars will need to explain both why a child learns the structural elements of a particular story grammar and how this process occurs.

The three different story schemas (simple descriptive, physical causality, social inference) proposed by McConaughy and Fitzhenry-Coor (1980), represent a
reasonable theoretical attempt to account for many of the differences between children and adults in story representation. However, many questions about children's understanding of stories remain unanswered, particularly those that deal with the actual developmental process.

Another issue concerns the different ways of assessing story knowledge. Recall experiments (which are the common task used in story grammar research) can provide information about story comprehension and retrieval but not necessarily about what an individual believes are the important elements in a story. Summarization tasks give an indication of what a person thinks are the critical story components but does not permit an analysis of the specific linguistic elements that are frequently used to express story knowledge. However, story production situations allow for both an estimation of how a person conceives a story in terms of the generation of various story statements and also how that story knowledge is communicated with particular linguistic markers. In addition, production studies provide an opportunity to consider another potentially important aspect of story development: the relationship between young children's story schema and pictorial material. It can be hypothesized that as young children are frequently told verbal stories as they see sequences of pictures, the development of their schematic story knowledge is closely tied to such experiences.
Based on these issues, two key questions emerge:

a. What do children know about stories?

b. Does the growth of story knowledge follow a developmental progression in terms of quantitative or qualitative change?

In order to answer these questions, two studies were conducted. The first study was intended to provide a description of the kinds of story information children and adults could give in making up a verbal story about a sequence of story pictures. A production task was used because it permits an evaluation of both the cognitive and linguistic aspects of story development. Previous studies of story production have revealed contradictory results about how a child's story schema operates (Poulsen, et al., 1979; Day, et al., 1979; Stein, 1979; Applebee, 1978).

In the first study, memory for the sequence of story pictures was also evaluated by testing an individual's ability to arrange the pictures into their initial sequence from a scrambled order.

The second study which tested the same age groups was designed to determine if children could generate story related information that was not necessarily part of their original story descriptions if asked appropriate questions. This study was a replication of the first one with the addition of a question-probing session. The questions were to find out whether children understand more about stories than is evident in the story they
Nursery school, first grade and second grade children were chosen for study because this age range may represent a critical period of change in the use of different story schema (McConaughy & Fitzhenry-Coor, 1980). In general, children in these age groups are changing rapidly in linguistic, cognitive and social knowledge. Adults were included to provide a comparison group that was not used in other production studies. If adults process story information in a way consistent with the story grammar theories, then differences found in the production of story information between children and adults could provide evidence for the presence of different story schemas.

The sequence of pictures came from a children's story book which depicted a series of events involving one main character. This particular picture story was chosen for several reasons:

a. The pictures present a character engaged in a wide range of behaviors so that detailed statements concerning the story were possible;

b. The main character was shown in every picture so that story continuity could be easily maintained across numerous pictures and events;

c. The picture story showed the main character interacting with other characters which afforded the potential for assessment of various reference terms;
d. As the pictures in the book were not accompanied by a verbal story, they were very detailed and the events within the sequence were closely related.

The main goal of both studies was to characterize the types of story knowledge possessed by children and adults. As this study focused on the production rather than the recall of stories, the stories were not analyzed strictly from a story grammar perspective. However, many of the dimensions of a story that were examined, are adaptations of the story elements posited by the story grammar approach. From the results of previous research, several hypotheses about the differences between children and adults on the specific story categories were generated.

A major part of any story includes a description of how a character acts, the implications of those actions for others and the reasons why those behaviors occur. Therefore statements that implied character intentions, thoughts or feelings were considered important in the investigation of how children and adults understand the story. It was hypothesized that these types of statements might show a developmental progression reflecting the use of qualitatively different story schemas (Flapan, 1968; McConaughy, 1980).

An understanding of a story also entails a recognition that single events are tied together to form higher level units (e.g., the different position of nodes on a story tree diagram). The production of these types of
story statements from the discrete events depicted demonstrates an inferential process of story integration. Inferences can also be made about a specific event shown in a picture that does not necessarily tie together with the events of other pictures. It was hypothesized that children would be more likely to give statements that pertain to discrete events in particular pictures rather than producing statements that involve inferences about the story events.

The main ideas of a story are generally connected together in various ways. Certain events may be causally related while others are associated in a temporal fashion. Specific linguistic terms such as because, and and then are generally used to connect these events together. The production of such connections must be obviously an interaction of how an individual views the relationship between events in the story and the individual's linguistic ability to express that knowledge with the appropriate terms. Results from psycholinguistic studies on the use of causal connectors indicate that young children (usually pre-operational) have trouble appropriately using connective terms such as because (Corrigan, 1975). Children also seem to prefer temporal as opposed to causal links in sentences (Katz & Brent, 1968). It was hypothesized that if the younger children operate with a simple descriptive schema in telling their story rather than with either a causal or social inference schema,
the way they connect events should differ significantly from the older children or adults. The young children's responses should be more temporally as opposed to causally based.

The use of different story schemas can also be assessed by looking at the variability in the statements that compose an individual's story. The question of interest is whether children and adults share the same idea of the story in that they give similar responses to each picture. By determining the most frequently occurring responses, some indication of story variability can be obtained. If adults are using an idealized story schema they should produce more typical story statements.

As stories involve linguistic expressions such as definite and indefinite articles, demonstratives and pronouns as mechanisms for communicating story relationships, these terms were chosen for investigating the issue of story reference. Besides evaluating the usage of single referential terms, referential concepts that connect various parts of the story together were considered. Examples of coreference and anaphora which denote referential relationships either within or between statements were also included for study. Additionally, the way story characters or objects are first introduced referentially (either as definite or indefinite) and then mentioned again can give an indication of an individual's understanding of discourse reference and knowledge of the
story-teller/listener relationship. It was expected that adults would use referential terms more often in their stories than children, especially in terms of coreference and anaphora. In addition, it was hypothesized that adults would be more sensitive to the listener's perspective and therefore use an indefinite article first in introducing a concept.

The second study was intended to determine if children could understand certain types of story information that they might not have been able to generate under the demands of a story construction task. The questions focused on many of the specific story categories that have already been discussed as important for evaluation.

The categories of questions that were asked were:

a. character thoughts and intention
b. character feelings
c. explicit events depicted in the pictures
d. inferences about story events, and
e. general setting information.

While no specific hypotheses were developed about the answers that would be given, it was expected that there might be fewer differences between the different age groups in answering the questions than in producing the stories. Stein and Glenn (1979) found that children were able to answer questions about specific types of story information even though they had failed to recall that information. A secondary issue involved the relation-
ship between the question answers and the stories. It was expected that if children gave different information in their stories (in this case more "story deviant") than the adults, that the degree of correspondence between stories and answers for the children would be rather low.

**Study I**

**Method**

**Participants.** In the first study, 43 children and 14 adults were tested. The children were recruited from both public and private schools in Newmarket, New Hampshire. They were divided into 3 groups each with approximately equal numbers of males and females:

1. Nursery School (N = 18), Mean Age = 5 yrs. 6 mos., Range = 4 yrs. 9 mos. to 6 yrs. 9 mos.
2. First Grade (N = 12), Mean Age = 7 yrs. 5 mos., Range = 6 yrs. 11 mos. to 8 yrs. 6 mos.
3. Second Grade (N = 13), Mean Age = 8 yrs. 5 mos., Range = 7 yrs. 10 mos. to 10 yrs. 12 mos.

The adults were college students (N = 14) with a Mean Age of 19 yrs. 7 mos., and a Range of 18.10 to 21.3 years. They participated in the study in partial fulfillment of a laboratory requirement for Introduction to Psychology.

**Stimuli.** The pictures used in the study were taken from a children's storybook, *Paddy Pork's Holiday*, by John S. Goodall. The pictures were color copied and arranged to look like a storybook. Nineteen pictures
were chosen from the total of 30 pictures in the book. The pictures are shown in Appendix A.

Procedure. Participants were tested individually by a female experimenter (the author). The instructions that each participant received were:

I am interested in what different people know about stories. I am going to show you a series of pictures and I want you to make-up a story about the pictures. Please make sure you look at all the pictures carefully. After I show you all the pictures, I will ask you to tell me your story.

The experimenter then showed the pictures to the participant, one at a time (to simulate a storybook reading session). Each picture was shown for approximately 15 seconds. After all the pictures were presented, the participant was asked to tell the story as he/she viewed the pictures again. The experimenter tape-recorded each participant's story for later transcription. The stories for all the participants are found in Appendix B.

After a participant had produced a verbal story, the experimenter took the pictures out of the book and placed them in a random order on a table. She then asked the participant to arrange the pictures into the order they were originally presented. The experimenter recorded the order of rearrangement.
Study II

Method

Participants. Twenty-eight children and 11 adults participated in Study II. The children were recruited from a summer camp in Hampton, New Hampshire. They were divided into 3 groups with approximately equal numbers of males and females in each group:

1. Nursery School (N = 10, Mean Age = 5 yrs. 10 mos., Range = 4 yrs. 7 mos. to 6 yrs. 7 mos.)
2. First Grade (N = 10), Mean Age = 7 yrs. 6 mos., Range = 6 yrs. 7 mos. to 8 yrs. 1 mo.
3. Second Grade (N = 8), Mean Age = 8 yrs. 4 mos., Range = 7 yrs. 9 mos. to 9 yrs. 2 mos.

The adults were again college students (N = 11) with a Mean Age of 18 yrs. 6 mos., and a Range of 17 yrs. 8 mos. to 19 yrs. 2 mos., who participated in the study in partial fulfillment of a laboratory requirement for Introduction to Psychology.

Stimuli. The storybook pictures used in this study were the same as those used in Study I. In addition, 22 probe questions about the pictures and the story were generated. These questions tapped a subject's knowledge of events in the story and how the main character, the pig, felt or thought about these events. The list of questions can be found in Appendix C.

Procedure. The procedure was identical to the first study in terms of presentation of the pictures and...
tape-recording of a participant's verbal story. Then, the experimenter told the participants that she was going to ask them some questions about the story and pictures and that they should answer the questions as best they could. Responses to the 22 questions were recorded for later transcription.
II. RESULTS AND DISCUSSION

Introduction

As the issues explored in the dissertation were rather diverse, the results and discussion for a particular topic are presented together. Therefore, the results and discussion for Study I and Study II will be divided into four sections.

The first section will deal with the issue of the specific kinds of story knowledge children and adults demonstrate when they tell a story. The types of story knowledge under consideration are:

a. character intentions, thoughts, and emotions
b. inferences about the story and the pictures
c. different linguistic terms that serve to connect the story together.

The coding procedures that were developed to assess each of these types of story knowledge will be described along with the results of the specific analyses and a discussion of those results.

In addition, this section will include the analyses of the responses given to each picture by the different age groups, as well as the supplementary issue of whether the picture sequences were remembered similarly for the different age groups.
In the second section, the coding procedures, results and discussion for the issue of how children and adults use specific types of referring expressions in the story will be presented. In the third section the results from the evaluation of the answers to the questions asked in the second study will be presented and discussed. The final section will contain the concluding comments.

Specific Statistical Procedures

In most cases one-way ANOVA's were performed to examine Age (group) differences in responses within a particular category of story knowledge. All follow-up analyses reported were Newman-Keuls with alpha level set at .05. Trend analyses were also performed in certain categories. When the interaction of age and category type was of interest a 2 factor mixed model ANOVA was used. If the interaction was significant, one-way ANOVA's were conducted to assess the simple effects.

General Issues of Reliability and Alpha Inflation

All of the coding of the specific categories and transcribing of the stories were done by the present author. As a result the issue of reliability or lack thereof must be raised.

The coding in certain categories involved defining a term and then counting the occurrence of that term in each person's story. In those cases, reliability should not be a problem. This type of coding procedure included the Character Intention, Thought and Emotion Category,
some of the terms in the Linguistic Category (Explicit Causal, Explicit Temporal, Miscellaneous, and Non Connectives) and the terms in the two Referential Categories.

However, the other categories (Story and Picture Inferences, and the Linguistic Connections of Implicit Causal and Implicit Temporal) did involve judgments about the meaning of various terms or statements. While every precaution was taken to code the data in a consistent manner, errors in reliability may have occurred. In addition, the original stories were transcribed only by the experimenter. In the process of transcription, the experimenter would listen to a story before writing down everything and then after the transcription go carefully over the story statements. As children do not always use the same linguistic expressions as adults, there is always the problem of the coder either adding or deleting something or inadvertently correcting part of the child's story or the child's grammar. While the experimenter was extremely careful to avoid such problems, there could be some linguistic bias of the coder in the stories.

As many different categories of study knowledge were assessed, numerous statistical tests were performed. In this type of situation there is always the problem of alpha inflation. In view of this problem, those conclusions that are based on marginal p levels can be viewed as tentative until replication occurs.
Problems in Comparison of Groups

One major problem that needs to be considered before the results of any analyses are presented is that the adult stories on average are significantly longer in terms of number of words, sentences, and statements (noun and verb phrase). The means and standard deviations for words, sentences and statements are presented in Table 3. One-way ANOVA's for the Age factor showed a significant relationship for number of words, $F(3,53) = 23.5$, $p < .0001$, for number of sentences, $F(3,53) = 10.5$, $p < .0001$, and for number of statements, $F(3,53) = 19.2$, $p < .0001$. These differences make certain comparisons between the adults and children difficult to evaluate. For example, if it is found that adults give significantly more responses in a particular category, those differences may be due to the adults' specific (and perhaps more sophisticated) knowledge of story conventions, or due to the simple result of greater verbal fluency in telling a story. One way of dealing with this problem is to compensate for the differences with some measure of verbal fluency. Such a process, while not perfect, does serve the function of equalizing the groups at least on the particular dimension in question. Two problems with this process are: a.) it is difficult to determine what measure to use; b.) whatever measure is chosen may mask real differences between groups because of the conservative nature of such a process.
Table 3

Group Means and Standard Deviations for Measures of Verbal Fluency as a Function of Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Verbal Fluency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Words</td>
</tr>
<tr>
<td>Nursery School</td>
<td>133.3</td>
</tr>
<tr>
<td></td>
<td>(33.0)</td>
</tr>
<tr>
<td>First Grade</td>
<td>199.0</td>
</tr>
<tr>
<td></td>
<td>(75.0)</td>
</tr>
<tr>
<td>Second Grade</td>
<td>181.0</td>
</tr>
<tr>
<td></td>
<td>(34.2)</td>
</tr>
<tr>
<td>Adult</td>
<td>442.4</td>
</tr>
<tr>
<td></td>
<td>(204.6)</td>
</tr>
</tbody>
</table>
In this case, it can be argued that the most reasonable measure to use as a correction factor is the total number of statements produced by each person. Number of statements was thought to be appropriate because, in most cases, a story statement (a noun and verb phrase) was the unit of analysis from which the information for a particular category was derived. The only exception to this process was in the coding of certain referential terms which were associated with Noun Phrases. This procedure will be discussed in the results section for the reference terms.

The correction process involved dividing each person's responses for a particular category by the number of story statements produced by the person. Therefore, the results reported for all the following categories involved the correction factor:

a. Character, Intention, Thought, and Emotion Statements
b. Story and Picture Inference Statements
c. Linguistic connections within picture statements
d. Referential Terms that convey relationship between objects.

Section I

Coding Procedures for Character Intention, Thought and Emotion Statements. Each of the stories from Study I was coded in terms of the number of statements that
reflected intentions, emotions or cognitions on the part of a character in the story.

The terms decide, want, try, and attempt were all considered instances of intentionality in that they denoted an intention or desire on the part of a character to engage in a particular behavior. They are EXPLICIT expressions of character motivations. On the other hand, the terms, going, going to or went are ambiguous examples of intentionality in English. The statement, the pig is going to go camping, may indicate something about the pig's intention to go on a camping trip as well as a prediction of his future action of going on a camping trip. These terms were labelled as IMPLICIT or ambiguous intentions.

Statements about a character's thinking, knowing, deciding, believing, realizing, or considering were classified as instances of a character's cognitive state. An example of this is the statement, the pig didn't know what to do next, which expresses something about the pig's thought processes and was therefore considered an instance of a character's cognitive state.

Finally, terms that expressed an emotion or feeling on the part of a character were noted. The words were: happy, scared, surprised, bewildered, mad and worried. The statement, the pig was scared climbing the tree, would be an example of a character emotion.
Results of Character Intention, Thought, and Emotion Statements. The three different types of story information, intentions, thoughts and emotions, were tabulated in terms of their frequency of occurrence in a story.

A 4(Age) x 4(Category Type) Mixed Model ANOVA was performed. The means and standard deviations are shown in Table 4. The results indicated a significant effect for Category Type $F(3, 162) = 37.5, p < .0001$, and for the interaction of Category Type and Age, $F(9, 162) = 14.9, p < .0001$ and a nonsignificant effect for Age ($p > .15$). As the interaction was the effect of interest, one-way ANOVA's were performed on the four Category Types: Explicit Intentions, Implicit Intentions, Thoughts, and Emotions.

The analysis on the Explicit Intention Statements showed a significant relationship for Age, $F(3, 53) = 3.15, p < .05$, but the pair-wise differences and the linear trend analysis were not significant.

For the Implicit Intention Statements, the analysis revealed a significant effect for Age, $F(3, 53) = 14.5, p < .0001$. All three groups of children gave significantly more implicit intention responses than the adults and the second grade children gave significantly more such responses than the nursery school or first grade children. The linear trend was significant, $F(1, 53) = 6.5, p < .01$.

The analysis on the Emotion Statement for Age showed a nonsignificant effect for Age, $p > .10$. 
### Table 4

Means and Standard Deviations for Number of Explicit Intention, Implicit Intention, Thought, and Emotion Statements as a Function of Age

<table>
<thead>
<tr>
<th></th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explicit Intention</td>
<td>3.5 (4.6)</td>
<td>7.3 (5.8)</td>
<td>3.5 (3.5)</td>
<td>7.0 (4.0)</td>
</tr>
<tr>
<td>Implicit Intention</td>
<td>11.8 (6.5)</td>
<td>10.1 (4.7)</td>
<td>18.8 (9.5)</td>
<td>3.0 (3.1)</td>
</tr>
<tr>
<td>Thought</td>
<td>1.7 (4.4)</td>
<td>2.7 (2.3)</td>
<td>2.5 (2.7)</td>
<td>11.7 (7.0)</td>
</tr>
<tr>
<td>Emotion</td>
<td>1.4 (3.0)</td>
<td>1.2 (2.3)</td>
<td>1.6 (2.2)</td>
<td>3.7 (4.3)</td>
</tr>
</tbody>
</table>

a Tabled values given as percentages of total number of statements.
The final analysis for Age on the Thought Statements revealed a significant relationship $F(3, 53) = 15.0$, $p < .0001$. The follow-up analysis showed that the adults gave significantly more responses of this type than any of the age groups of children and the linear trend was significant, $F(1, 53) = 31.2$, $p < .0001$.

To provide additional information on the Explicit and Implicit Intention Categories, one-way ANOVA's were conducted on the specific terms that composed these categories. The terms that made up the Explicit Intention Category were: **Try**, **Decide**, **Want**, and **Attempt**.

The analysis on the **Decide** terms revealed a significant effect for Age, $F(3, 53) = 11.8$, $p < .0001$. Adults produced more **Decide** statements than any of the age groups of children and the linear trend was significant, $F(1, 53) = 20.5$, $p < .0001$.

For the **Want** terms, the analysis showed a significant effect for Age, $F(3, 53) = 4.2$, $p < .0001$. Second grade children gave more **Want** statements than any of the other age groups and the linear trend was not significant, $p > .6$.

The **Try** and **Attempt** statements were not significant, $p > .8$.

The Implicit Category was comprised of the terms: **Go**, **Going To**, and **Went**. The analysis for Age on the **Went** statements showed a significant effect, $F(3, 53) = 9.3$, $p < .0001$. The second grade children used more **Went**
Table 5

Means and Standard Deviations for the Number of Try, Decide, Want, and Attempt Statements as a Function of Age

<table>
<thead>
<tr>
<th>Explicit Intention Statements</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Try</td>
<td>1.4 (2.7)</td>
<td>1.8 (3.1)</td>
<td>2.1 (3.0)</td>
<td>1.2 (1.5)</td>
</tr>
<tr>
<td>Decide</td>
<td>.22 (.94)</td>
<td>.17 (.61)</td>
<td>.00 (.00)</td>
<td>4.2 (4.3)</td>
</tr>
<tr>
<td>Want</td>
<td>.86 (2.0)</td>
<td>3.6 (5.3)</td>
<td>.00 (.00)</td>
<td>.6 (1.4)</td>
</tr>
<tr>
<td>Attempt</td>
<td>.94 (1.8)</td>
<td>1.6 (1.9)</td>
<td>1.3 (1.8)</td>
<td>1.0 (1.2)</td>
</tr>
</tbody>
</table>

*Tabled values are given as percentages of total number of statements.*
Table 6

Means and Standard Deviations for the Number of Go, Going To, and Went Statements as a Function of Age

<table>
<thead>
<tr>
<th>Implicit Intention Statements</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go</td>
<td>1.2 (2.0)</td>
<td>2.0 (3.2)</td>
<td>.79 (1.5)</td>
<td>.25 (.6)</td>
</tr>
<tr>
<td>Going to</td>
<td>5.1 (5.6)</td>
<td>2.8 (2.8)</td>
<td>5.0 (5.1)</td>
<td>1.6 (2.6)</td>
</tr>
<tr>
<td>Went</td>
<td>5.4 (5.6)</td>
<td>5.1 (6.3)</td>
<td>12.9 (8.5)</td>
<td>1.1 (1.7)</td>
</tr>
</tbody>
</table>

*Tabled values are given as percentages of total number of statements.*
statements than any of the other age groups.

The analysis of the *Go* and *Going To* terms did not reveal any significant results for Age, *p > .07*.

**Coding of Story and Picture Inferences.** The stories were coded to find the number of story inferences that were given. Story inferences refer to statements about events which connect the pictures together in a way that reflects a unified story. This particular analysis excludes pronominal and anaphoric reference (which will be covered later) and focuses on statements that demonstrate an integration of events in the pictures as a related sequence. Story inferences refer to statements about a picture which could not come from viewing that picture in isolation. These story statements may be indicative of events that previously occurred in a picture but now change the story perspective (past story inferences), or events that will be depicted in a future picture (future picture inferences) but their introduction lends coherence to the story. If a statement relates to an event that happens later in a picture or something that happened previously in a picture we can assume it involves an integration of story information.

In order to decide whether a statement counted as a story inference, base rate responses were collected from 19 groups of college students in which each group was shown a different picture from the story and asked to make-up a short two or three sentence story about the
picture. The responses for each picture were grouped together and are presented with their frequency of occurrence in Appendix D. Each statement that was coded as a story inference because of the context of the story, was verified by the individual picture responses. If a statement had been considered a story inference but was then found to be given by an individual in that particular picture group, it was removed from the story inference category. The rationale for this verification procedure was that a story inference should represent a wholistic concept derived from viewing all the pictures in sequence. If a statement could be inferred from a single picture then it could no longer be justifiably classified as the product of a story integration process. It was recognized that this coding procedure would provide a conservative estimate of story inferences in that it could underestimate story integration abilities but this was considered an appropriate system.

Several examples of story inferences will be presented to illustrate the coding procedure. For example, a statement about the pig riding in the train after having fallen in, given for Picture 7, was coded as a story inference because it related in a coherent fashion an event that had already occurred (the pig falling off the broken tree branch after he climbed up to get his tent) with the actions of the present picture. In addition, this statement was not given as a story response by any
of the individuals shown Picture 7 in isolation.

In another example, a response to Picture 12 that concerned the pig taking the scarecrow's clothes was called a story inference because it integrated information from the previous pictures in terms of the pig going swimming, losing his clothes to a dog and then seeing a scarecrow with some clothes on. This provides a unified sequence of events that could not be derived from just viewing Picture 12 alone. None of the individuals in the base rate group for Picture 12 gave a response about the pig taking clothes from the scarecrow.

In Picture 17, a statement regarding the pig's getting kicked out of the building where he was trying to play the piano was also labelled a story inference. In this case, the actions of the pig are precipitated by the previous events of the pig playing the piano without knowing how and then being confronted by the real pianist. In the base rate group for Picture 17, no responses were produced that involved the pig getting kicked out of the auditorium.

An example of an originally categorized story inference that was changed due to the verification procedure was the statement for Picture 8 involving the pig getting off the train. While this action relates to the previous events of the pig falling off the tree into a train going by underneath, it also appeared as a response to Picture 8 from the base rate group. This indicated
that such an idea could be inferred from an individual picture and may not represent a story-picture integration process.

A second category that involved inferences about information in a picture was devised and called picture inferences. The rationale for developing a picture inference category was to account for story information that involved an inference about the particular events in a picture. For example, in Picture 9, a statement about the pig going swimming concerns an inference from the pig taking his clothes off by a lake. It could easily relate to a theme in the story but in addition is a reasonable deduction from viewing only that picture. The responses of the base rate group for Picture 9 attest to this idea, in that a common response to that picture was, the pig went for a swim.

Results for Story and Picture Inference

Story and Picture Inferences were calculated in terms of the frequency of response in a story. The analyses for both categories were corrected for by the total statement value appropriate for each age group. A 2 (Category Type) x 4 (Age) Mixed Model ANOVA was conducted; the means and standard deviations are shown in Table 7. The results revealed a significant effect for Category Type, \( F(1, 53) = 150.9, p < .0001 \) and also for the interaction of Age and Category Type, \( F(3, 53) = 3.4, p < .02 \), and a nonsignificant effect for Age, \( p > .07 \). The significant interaction
Table 7

Means and Standard Deviations for Number of Story Inference Statements as a Function of Age

<table>
<thead>
<tr>
<th>Categories of Inferences</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story Inferences</td>
<td>12.9</td>
<td>17.8</td>
<td>15.3</td>
<td>20.9</td>
</tr>
<tr>
<td></td>
<td>(8.7)</td>
<td>(8.7)</td>
<td>(8.4)</td>
<td>(3.8)</td>
</tr>
<tr>
<td>Picture Inferences</td>
<td>2.4</td>
<td>2.3</td>
<td>4.8</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>(2.7)</td>
<td>(2.1)</td>
<td>(3.9)</td>
<td>(2.0)</td>
</tr>
</tbody>
</table>

\(^a\) Tabled values given as percentages of total number of statements.
was analyzed with one-way ANOVA's for the Age factors on Story Inferences and Picture Inferences.

The analysis for the Story Inference Statements showed a significant relationship for Age, $F(3, 53) = 2.9$, $p < .03$, with the number of Story Inference responses given by the adults significantly higher than the nursery school children's. The means indicated a significant linear trend, $F(1, 53) = 6.4$, $p < .01$.

For the Picture Inference Statements a significant relationship for Age was found, $F(3, 53) = 2.7$, $p < .04$. The mean response for the second grade children was significantly higher than for the adults. The linear trend was not significant, $p > .70$.

**Coding of Linguistic Connections.** The purpose of this coding was to determine the various kinds of linguistic connections that were given in a story. Linguistic connections were defined as specific language associations that tied together two or more statements within a story. The connections in the story were considered in two different ways: a.) whether they connected statements BETWEEN pictures, or b.) whether they connected statements WITHIN a picture.

There were several different types of connector categories that were assessed: Causal, Temporal, and Miscellaneous. The causal category consisted of the following terms: because, if-then, so, and so, and and. All of these terms except and were labelled as EXPLICIT
CAUSAL. The term and has several meanings in that it can be indicative of a causal, temporal, concurrent or a conjunctive relationship. In terms of causality and was called IMPLICITLY CAUSAL and was coded according to a replacement rule. That is, if statements that were connected by and were thought to imply causality in the context of the events in the story, then an explicit term (such as because) was substituted and, if it fit, the term was coded implicitly causal. For example, the statement, He landed in the mud and he got all dirty, can be replaced as He got all dirty because he landed in the mud, and therefore implied causality.

Temporal linguistic terms included and now, now, then, but then, and then, and and. Again, all of the terms except and were grouped as Explicit Temporal. The term and was considered and Implicit Temporal and involved events which followed one another. For example, the statement, He took off his clothes and he went into the water, would be labelled as temporal because one event (went into the water) follows another (took the clothes off).

Miscellaneous Connections involved the terms: but, however, as, O.K., well, you know, when, while and until. These words were labelled in this fashion because it was uncertain what exactly was implied by such terms. In general, it was believed that they involved some unspecified connection between events in a story especially
as qualifications or directions.

Finally, the number of Non-Connectives that existed in the stories were calculated. Non-Connectives occurred when no specific linguistic connectives existed between sentences. For example, in the sentences: The pig climbed up the tree. The pig landed in the train, there was no specific word that ties the two statements together so this would be classified as a non-connective. The Non-Connectives were particularly important as a comparison for evaluating the other specific categories of linguistic association.

Results of the Linguistic Connection Analyses

The frequency of responses for the different kinds of linguistic connections that occurred between the pictures was calculated for each person. The analyses for the between picture linguistic variables did not involve a correction factor because each subject could only give 18 responses for the 19 pictures. Therefore, each individual was limited in terms of the number of responses that could be given.

A 6(Category Type) x 4(Age) Mixed Model ANOVA was conducted and the means and standard deviations are presented in Table 8. A significant effect for Category Type was found, $F(5, 265) = 39.8$, $p \leq .0001$, and for the interaction of Category Type and Age, $F(15, 265) = 5.2$, $p \leq .0001$, and nonsignificant for Age, $p > .47$. Six one-way ANOVA's for Age on the linguistic categories
Table 8

Means and Standard Deviations for Number of Explicit Causal, Implicit Causal, Explicit Temporal, Implicit Temporal, Miscellaneous Connection, and No Connections Between Picture Category as a Function of Age

<table>
<thead>
<tr>
<th>Linguistic Connections Between Pictures</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explicit Causal</td>
<td>.11 ( .47)</td>
<td>.50 ( .79)</td>
<td>.30 ( .85)</td>
<td>3.33 (2.2)</td>
</tr>
<tr>
<td>Implicit Causal</td>
<td>.22 ( .54)</td>
<td>.00 ( .00)</td>
<td>.15 ( .37)</td>
<td>.13 ( .35)</td>
</tr>
<tr>
<td>Explicit Temporal</td>
<td>5.8 (6.5)</td>
<td>4.3 (4.5)</td>
<td>7.6 (4.4)</td>
<td>1.2 (1.5)</td>
</tr>
<tr>
<td>Implicit Temporal</td>
<td>1.9 (2.5)</td>
<td>3.6 (4.0)</td>
<td>2.3 (2.3)</td>
<td>8.3 (3.5)</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>.11 ( .32)</td>
<td>.16 ( .38)</td>
<td>.30 ( .63)</td>
<td>1.9 (2.1)</td>
</tr>
<tr>
<td>No Connection</td>
<td>10.3 (7.3)</td>
<td>10.1 (6.8)</td>
<td>8.3 (4.7)</td>
<td>4.6 (3.4)</td>
</tr>
</tbody>
</table>
between pictures were used to assess the interaction.

The analysis for Age on the Explicit Causal Category showed a significant relationship, $F(3, 53) = 20.7$, $p < .0001$. Adults produced significantly more explicit causal responses than any of the three groups of children and there was a significant linear trend, $F(1, 53) = 41.9$, $p < .0001$.

The result of the analysis for Age on the Implicit Causal category was not significant, $p > .52$.

The analysis for the Explicit Temporal Category was significant for Age, $F(3, 53) = 4.4$, $p < .007$. The means for the nursery school and second grade children were higher than that of the adult group. The opposite effect was evidenced in the Implicit Temporal category for Age which was significant, $F(3, 53) = 12.7$, $p < .0001$. The adults produced significantly more implicit temporal responses than any of the other age groups and the means indicate a significant linear trend, $F(1, 53) = 24.9$, $p < .0001$.

The Miscellaneous Connection Category analysis for Age was significant, $F(3, 53) = 8.16$, $p < .0001$ with the adults producing more of these type of connectors than any other group. The pattern of means constituted a significant linear trend, $F(1, 53) = 18.3$, $p < .0001$.

The analysis for the No Connective Category for Age was significant, $F(3, 53) = 3.1$, $p < .03$. The mean responses of No Connective was significantly higher for
the nursery school and first grade children than for the adults. The linear trend was also significant, \(F(1, 53) = 8.0, p < .001\).

The result of the ANOVA on all the Linguistic Connections collapsed together was significant for Age, \(F(3, 53) = 3.6, p < .05\); the means are shown in Table 9. The follow-up analysis showed that adults gave more connectives across all categories than either the nursery school or first grade children, and the pattern of means showed a significant linear trend, \(F(1, 53) = 9.5, p < .003\).

The number of linguistic associations that an individual used to connect the statements describing a particular picture was tabulated and then averaged across all the pictures. A 4(Age) x 6(Category Type) Mixed Model ANOVA was performed. A significant effect for Category Type, \(F(5, 265) = 104.9, p < .0001\), for Age, \(F(3, 53) = 282.2, p < .0001\), and for the interaction of Age and Category Type, \(F(15, 265) = 10.6, p < .001\), were found. The means and standard deviations are shown in Table 10.

As the significant interaction was of interest, six one-way ANOVA's were conducted on the linguistic categories for Age.

The analysis of the Explicit Causal category as a function of Age was significant, \(F(3, 53) = 3.5, p < .02\). The adults produced significantly more responses than the second graders. The linear trend was not significant,
Table 9

Means and Standard Deviations for the Number of Total Linguistic Connections Between Picture Category as a Function of Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8.2</td>
<td>8.5</td>
<td>10.7</td>
<td>14.7</td>
</tr>
<tr>
<td>(7.1)</td>
<td>(6.9)</td>
<td>(4.9)</td>
<td>(3.8)</td>
<td></td>
</tr>
</tbody>
</table>
### Table 10

Means and Standard Deviations for Number of Explicit Causal, Implicit Causal, Explicit Temporal, Implicit Temporal, Miscellaneous Connection, and No Connection Within Picture Category as a Function of Age

<table>
<thead>
<tr>
<th>Linguistic Connections Within Pictures</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explicit Causal</td>
<td>2.2</td>
<td>1.7</td>
<td>1.0</td>
<td>5.7</td>
</tr>
<tr>
<td></td>
<td>(4.7)</td>
<td>(3.3)</td>
<td>(3.6)</td>
<td>(4.4)</td>
</tr>
<tr>
<td>Implicit Causal</td>
<td>.6</td>
<td>1.9</td>
<td>2.5</td>
<td>1.7</td>
</tr>
<tr>
<td></td>
<td>(1.8)</td>
<td>(2.6)</td>
<td>(3.4)</td>
<td>(2.1)</td>
</tr>
<tr>
<td>Explicit Temporal</td>
<td>.36</td>
<td>2.5</td>
<td>2.1</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>(1.6)</td>
<td>(3.3)</td>
<td>(3.0)</td>
<td>(2.4)</td>
</tr>
<tr>
<td>Implicit Temporal</td>
<td>9.6</td>
<td>18.9</td>
<td>26.7</td>
<td>43.0</td>
</tr>
<tr>
<td></td>
<td>(9.4)</td>
<td>(16.6)</td>
<td>(8.8)</td>
<td>(19.4)</td>
</tr>
<tr>
<td>Miscellaneous Connections</td>
<td>.9</td>
<td>1.5</td>
<td>.7</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>(2.1)</td>
<td>(1.9)</td>
<td>(1.4)</td>
<td>(3.0)</td>
</tr>
<tr>
<td>No Connections</td>
<td>3.5</td>
<td>7.1</td>
<td>4.9</td>
<td>7.3</td>
</tr>
<tr>
<td></td>
<td>(5.1)</td>
<td>(7.7)</td>
<td>(4.6)</td>
<td>(6.5)</td>
</tr>
</tbody>
</table>

* Tabled values given as percentages of total number of statements
The Implicit Temporal Category was analyzed for Age and a significant relationship was found, \( F(3, 53) = 15.6, p < .0001 \) with the adults generating more and responses than did any of the groups of children. The second grade children also produced more implicit temporal connections than did the nursery school children. The pattern of results constituted a significant linear trend, \( F(1, 53) = 45.0, p < .0001 \).

The analyses for Age for all the other categories were found to be nonsignificant for age: Implicit Causal \( (p > .21) \), Explicit Causal \( (p > .06) \), Miscellaneous \( (p > .10) \) and No Connectives \( (p > .26) \).

Results of Modal Responses for the Story Pictures.
The story statements given by the participants for each picture were characterized in terms of their frequency of occurrence. Appendix E presents all of this information, along with the total and group frequencies for the statements. The breakdown and grouping of statements was done at a conceptual level ignoring stylistic or syntactic differences. The process of characterizing these statements focused on assessing the semantic similarities between individual responses. For example, the statements, **His tent blew off in the storm**, and, **The wind blew his tent away**, given for Picture 4, were classified together because they represent similar depictions of events in the context of the story.
The most frequently occurring statement for each picture defined the **modal response**. Table 11 presents the modal responses across all age groups for each of the 19 pictures. Table 12 presents the modal responses for each of the 19 pictures for each Age group. These modal responses represent a typical story for the pictures in the sense that they are the story statements given by the greatest number of participants. In addition, they seem to represent a reasonable description of the picture events in the form of a coherent story. However, as the modal response is calculated separately for each picture, a modal story formed by combining the modal responses does not necessarily resemble a typical story.

As a major question of interest was to determine how children and adults differed in terms of the story information that was given, an ANOVA was conducted on the number of modal responses given by each individual. The results of this analysis showed a significant relationship for Age, $F(3, 53) = 8.39$, $p < .0001$. The means and standard deviations are presented in Table 13. The follow-up analysis indicated that the adults gave significantly more modal descriptions for all the pictures than did either the nursery school or first grade children. In addition, the mean of the second grade children was significantly higher than that of the nursery school children. The pattern of means constitutes a significant linear trend, $F(1, 53) = 25.0$, $p < .0001$. 
Table 11

Frequencies of the Modal Response to Each Picture for All Participants

<table>
<thead>
<tr>
<th>Picture</th>
<th>Modal Response</th>
<th>Frequency of Response (from 57 subjects)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The pig went camping</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>He's setting up his tent</td>
<td>45</td>
</tr>
<tr>
<td>3</td>
<td>It started raining</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>The wind blew his tent away</td>
<td>46</td>
</tr>
<tr>
<td>5</td>
<td>He's climbing a tree</td>
<td>42</td>
</tr>
<tr>
<td>6</td>
<td>He fell/landed in the train</td>
<td>25</td>
</tr>
<tr>
<td>7</td>
<td>He got all dirty</td>
<td>17</td>
</tr>
<tr>
<td>8</td>
<td>He got off the train</td>
<td>22</td>
</tr>
<tr>
<td>9</td>
<td>He's taking off his shirt/clothes</td>
<td>29</td>
</tr>
<tr>
<td>10</td>
<td>The dog took his clothes</td>
<td>47</td>
</tr>
<tr>
<td>11</td>
<td>He saw a scarecrow</td>
<td>29</td>
</tr>
<tr>
<td>12</td>
<td>He took the scarecrow's clothes</td>
<td>35</td>
</tr>
<tr>
<td>13</td>
<td>He walks into town</td>
<td>22</td>
</tr>
<tr>
<td>14</td>
<td>He's dragged onto the stage</td>
<td>15</td>
</tr>
<tr>
<td>15</td>
<td>He was playing the piano</td>
<td>30</td>
</tr>
<tr>
<td>16</td>
<td>Then he fell off the chair/piano seat</td>
<td>18</td>
</tr>
<tr>
<td>17</td>
<td>The pig ran</td>
<td>50</td>
</tr>
<tr>
<td>18</td>
<td>He saw his family</td>
<td>27</td>
</tr>
<tr>
<td>19</td>
<td>He helps pick apples</td>
<td>10</td>
</tr>
</tbody>
</table>
Table 12

Frequency of the Modal Response to Each Picture as a Function of Age

<table>
<thead>
<tr>
<th>Picture</th>
<th>Modal Response</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The pig went camping</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>The pig is walking</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>He's setting up his tent</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>It started raining</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>The wind blew his tent away</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>He's climbing a tree</td>
<td>18</td>
</tr>
<tr>
<td>6</td>
<td>He fell off the train</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>He's jumping over the train</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>He's on the train</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>He got off the train</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>He's taking off his shirt/clothes</td>
<td>11</td>
</tr>
<tr>
<td>10</td>
<td>The dog took his clothes</td>
<td>11</td>
</tr>
<tr>
<td>11</td>
<td>He got out of the water</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>He took the scarecrow's clothes</td>
<td>9</td>
</tr>
<tr>
<td>13</td>
<td>Then he saw two other pigs</td>
<td>10</td>
</tr>
<tr>
<td>14</td>
<td>Then someone was introducing him</td>
<td>3</td>
</tr>
<tr>
<td>15</td>
<td>He was playing the piano</td>
<td>13</td>
</tr>
<tr>
<td>16</td>
<td>Then he fell off the chair/piano seat</td>
<td>6</td>
</tr>
<tr>
<td>17</td>
<td>The pig ran</td>
<td>16</td>
</tr>
<tr>
<td>18</td>
<td>Pig ran</td>
<td>8</td>
</tr>
<tr>
<td>19</td>
<td>He saw people picking apples</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>He helped pick apples</td>
<td>5</td>
</tr>
</tbody>
</table>

12 First Grade Children

<table>
<thead>
<tr>
<th>Picture</th>
<th>Modal Response</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The pig went camping</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>He's setting up his tent</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>It started raining</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>The wind blew his tent away</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>He's trying to get his tent</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>He fell/landed in the train</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>He fell off the tree</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>He got all dirty</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>He was going to bathe/wash up or/make himself clean</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>He went swimming</td>
<td>7</td>
</tr>
</tbody>
</table>
(12 First Grade Children, cont'd)

<table>
<thead>
<tr>
<th>Picture</th>
<th>Modal Response</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>The dog took his clothes</td>
<td>9</td>
</tr>
<tr>
<td>11</td>
<td>He saw a scarecrow</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>He took the scarecrow's clothes</td>
<td>9</td>
</tr>
<tr>
<td>13</td>
<td>He walks into town</td>
<td>3</td>
</tr>
<tr>
<td>14</td>
<td>Then he got up on stage</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>He was playing the piano</td>
<td>7</td>
</tr>
<tr>
<td>16</td>
<td>Then he fell off the chair/piano seat</td>
<td>5</td>
</tr>
<tr>
<td>17</td>
<td>The pig ran</td>
<td>12</td>
</tr>
<tr>
<td>18</td>
<td>He saw a family</td>
<td>7</td>
</tr>
<tr>
<td>19</td>
<td>His mother cooks some food</td>
<td>4</td>
</tr>
</tbody>
</table>

13 Second Grade Children

<table>
<thead>
<tr>
<th>Picture</th>
<th>Modal Response</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The pig went camping</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>The pig is walking</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>He's setting up his tent</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>It started raining</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>The wind blew his tent away</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>He's trying to get his tent</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>He fell off the tree</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>He landed in coal/mud</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>He saw a lake/pond</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>He went swimming</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>The dog took his clothes</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>A dog came by</td>
<td>12</td>
</tr>
<tr>
<td>11</td>
<td>He saw a scarecrow</td>
<td>6</td>
</tr>
<tr>
<td>12</td>
<td>He took the scarecrow's clothes</td>
<td>8</td>
</tr>
<tr>
<td>13</td>
<td>He walks into town</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Then he saw two other pigs</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>Now he's going to play piano</td>
<td>8</td>
</tr>
<tr>
<td>15</td>
<td>He was playing the piano</td>
<td>9</td>
</tr>
<tr>
<td>16</td>
<td>Then he fell off the chair/piano seat</td>
<td>7</td>
</tr>
<tr>
<td>17</td>
<td>The pig ran</td>
<td>11</td>
</tr>
<tr>
<td>18</td>
<td>He saw his family</td>
<td>6</td>
</tr>
<tr>
<td>19</td>
<td>They were having fun</td>
<td>5</td>
</tr>
<tr>
<td>Picture</td>
<td>Modal Response</td>
<td>Frequency</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>1</td>
<td>The pig went camping</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>He's setting up his tent</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>A big wind/storm came</td>
<td>15</td>
</tr>
<tr>
<td>4</td>
<td>The wind blew his tent away</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>He's climbing a tree</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>He fell/landed in the train</td>
<td>11</td>
</tr>
<tr>
<td>7</td>
<td>He got all dirty</td>
<td>9</td>
</tr>
<tr>
<td>8</td>
<td>He got off the train</td>
<td>12</td>
</tr>
<tr>
<td>9</td>
<td>He took a bath</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>A dog took his clothes</td>
<td>15</td>
</tr>
<tr>
<td>11</td>
<td>He saw a scarecrow</td>
<td>12</td>
</tr>
<tr>
<td>12</td>
<td>The scarecrow's clothes are</td>
<td>11</td>
</tr>
<tr>
<td>13</td>
<td>He walks into town</td>
<td>11</td>
</tr>
<tr>
<td>14</td>
<td>He's dragged onto the stage</td>
<td>13</td>
</tr>
<tr>
<td>15</td>
<td>He's dragged on stage</td>
<td>6</td>
</tr>
<tr>
<td>16</td>
<td>The real guy came in</td>
<td>10</td>
</tr>
<tr>
<td>17</td>
<td>The pig ran</td>
<td>11</td>
</tr>
<tr>
<td>18</td>
<td>He saw his family</td>
<td>12</td>
</tr>
<tr>
<td>19</td>
<td>They lived happily ever after</td>
<td>6</td>
</tr>
</tbody>
</table>
Table 13

Means and Standard Deviations for Number of Modal Responses Across All the Pictures as a Function of Age.

<table>
<thead>
<tr>
<th></th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>8.0 (2.9)</td>
<td>9.5 (2.7)</td>
<td>10.4 (1.8)</td>
<td>12.0  (1.4)</td>
</tr>
</tbody>
</table>
One problem with this analysis is that adults give significantly more story statements than any of the other age groups, thus it can be argued that they have more of a chance of producing a modal response. However, the average number of statements given by the second graders does not differ from the nursery school and first grade children, so the finding of a significant difference among the age groups of children gives evidence to some developmental process in producing story information.

While the analysis of the modal response gives information about the variability of responses to the pictures, it does not give information about any specific content differences in the stories. After reading the stories and calculating the modal responses it became evident that at least one part of the story was interpreted differently. Very few of the children view the story as a case of mistaken identity whereas almost all of the adults do. The frequency of this statement was calculated and the data are presented in Table 14.

A 2(Statement Occurrence) x 4(Age) chi-square was performed and found to be significant, \( x^2 = 35.0, p < .0001 \). All of the adults and almost none of the nursery school children see the story as involving a case of mistaken identity.

Analysis of the Picture Rearrangement Task

In order to evaluate if there were any differences in the subject's reordering of the story pictures, the
Table 14

2 x 4 Contingency Table for Age and Mistaken Identity

<table>
<thead>
<tr>
<th>Mistaken Identity</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery School</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>First Grade</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Second Grade</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Adult</td>
<td>15</td>
<td>0</td>
</tr>
</tbody>
</table>
number of ordering errors for each subject was calculated. An ordering error occurred when any picture was not replaced in the initial sequence. For example, a subject would be marked as having 5 ordering errors, if 5 pictures were not in their original sequence of presentation after the rearrangement was performed.

An ANOVA was performed on these errors for age and it was found to be significant, $F(3, 53) = 9.3$, $p < .0001$. The means and standard deviations are shown in Table 15. The follow-up analysis showed that the mean number of ordering errors for the nursery school children was significantly higher than for any of the other groups. The linear trend analysis was significant, $F(1, 53) = 25.72$, $p < .001$.

Discussion

In this section the implications of the results that were found are considered. While at first glance, the issues to be discussed may appear diverse, the common thread connecting them together is that each topic provides some information about what kinds of story knowledge children and adults possess.

A summary of the results indicates that:

a. Adults may produce more Explicit Intention Statements than nursery school and second grade children.

b. First graders may produce more Explicit Intention Statements than nursery school and second grade children.
Table 15

Means and Standard Deviations for Number of Ordering Errors in the Rearrangement Task as a Function of Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.2 (6.8)</td>
<td>8.7 (5.7)</td>
<td>2.4 (3.8)</td>
<td>.4 (1.5)</td>
</tr>
</tbody>
</table>
c. Nursery school, first grade and second grade children all produce more "Implicitly" labelled Intention Statements than adults.

d. Adults produce more Thought Statements than any of the groups of children.

e. The groups do not differ in producing Emotion Statements.

f. Adults give more Story Inferences than nursery school children.

g. Second grade children give more Picture Inferences than adults.

h. Adults produce more Explicit Causal Connections both between and within pictures than the children.

i. Children produce more Explicit Temporal Connections than adults.

j. Adults produce more Implicit Temporal Connections both within and between pictures than children.

k. Adults produce more Miscellaneous Connections than children.

l. All groups of children use No Connectives more often than adults.

m. Adults generate more Modal Responses to the pictures than children.

n. Second grade children produce more Modal Responses than nursery school children.

o. Adults view the story as a case of Mistaken Identity more often than the children.
Nursery school children make more ordering errors than any of the other groups.

Originally, it was expected that adults would produce story information reflective of an "idealized" story (as defined by story grammars) and that this process in children would reflect a developmental sequence. Several findings from this study do support the idea that there is a developmental change in story knowledge. Several possible explanations for the various findings will be presented. Additionally, an attempt will be made to account for several unexpected findings.

Although the Neuman-Keuls procedures did not show differences between means for the age groups on the Explicit Intention Category, the fact that adults produced more of those statements than the nursery school or second graders, is suggestive of some meaningful difference between these groups. That adults produce more Explicit Intention Statements is not by itself surprising, but it does indicate along with several other results that adults explicitly view the stories as involving intentions, goals and motives on the part of the characters (McConaughy & Fitzhenry-Coor, 1980). In assessing the types of Explicit Intention Statements produced by the adults, it was found that a large proportion involve a decide statement, such as, Mr. Piggy decided to go for a swim. Statements of this nature reflect an understanding of the relationship between an individual's cognitive state and a specific
behavior that results (or could result) from that state. The emphasis that adults place on cognitive explanations of a character's behavior is further supported by the findings that Thought Statements are also given more frequently by the adults than the children. It appears that adults recognize the importance of a character formulating plans of action in order to achieve some end. This is illustrated in the many statements that the adults give about the pig not knowing what to do next, indicating that there is a relationship between the knowledge the pig has and the decisions he makes, in terms of engaging in a particular behavior. In this situation, his not knowing something prevents him, at least temporarily, from acting in certain ways.

Additional support for the idea that adults emphasize cognitive components of the character's actions comes from the finding that, in general, it is the adults who view part of the story as a case of Mistaken Identity. The situation of mistaken identity comes from some of the other characters (the two pigs in the theater) thinking that the pig was someone else (e.g., they thought he was a piano player). This sequence of events reflects the importance of character beliefs in leading to particular story actions and operates in many different types of stories (Bruce, 1980). In other words this entire part of the story is a result of some belief on the part of the pigs about the first pig's identity. In terms of the
story, the reason for this belief can be related back to a previous event in which the pig takes clothes from the scarecrow which resemble a fancy tuxedo. What is important for consideration about this belief is that it leads to a new situation in which the pig is made to play the piano. Therefore, it appears that because adults understand that cognitive states such as beliefs are important, they develop stories that have a very different orientation than those generated by the children.

The observation that children and adults do not produce a similar story, at least in terms of the situation of mistaken identity related to the finding that adults produce more Story Inferences than the nursery school children. The idea of the pig's identity being confused with another character's identity is an example of a Story Inference because it involves the process of going beyond several single events in the story in order to develop an emergent theme. This inferential process reflects the integration of potentially discrete events into a new idea that is not directly represented in either a verbal or a pictorial sequence. Another example of a Story Inference involves the pig's action of taking the scarecrow's clothes. This particular sequence is not depicted in any picture and is understandable only in the context of the other story events that involve the pig losing his clothes to a dog and so needing new clothes which he finds on a scarecrow. The pig's action of
taking the scarecrow's clothes may reflect a character goal which occurs as a consequence of the pig's loss.

The use of such an integration process suggests that the adults are utilizing a story schema that is organized in a specific hierarchical fashion as predicted by a story grammar approach (Mandler & Johnson, 1977; Stein & Glenn, 1977; Thorndyke, 1977). On the other hand, why nursery school children do not produce as many Story Inferences as the adults may be indicative of several different factors. The youngest children's story schemata may be organized as a sequential ordering of story information which reflects a different level of hierarchical arrangement. That is, these children may understand a story as a series of discrete events that are linked together by specific linguistic conventions such as and then, now, and then.

Another possibility for these differences is that children and adults do not differ in story knowledge but rather the youngest children cannot produce many story inferences because they do not have the requisite cognitive skills. The story pictures presented in this study involved many different events and it may have been difficult for the children to keep track of all the story events depicted in the pictures. The nursery school children also make more errors in rearranging the pictures into the previously presented sequence than any of the other groups, which could support this hypothesis.
However, the results of Study II which asked specific questions about information in the pictures show that the nursery school children give answers to the questions, even though those answers are not the same as those given by the older children and adults. These findings indicate that the nursery school children are able to process some information about the pictures and argue against a simple memory deficit explanation.

In addition, the data from the analysis of the Linguistic Connections shows that children use Explicit Temporal Connections (and then, then) more than the adults in connecting the events between the pictures. If the children's story schemata are organized in a sequential manner then temporal connections, particularly and then and then, would be an appropriate way to link the events together. The use of and then, and then would indicate that the children understood the temporal if not causal relationship that often exists between story events (e.g., He climbed up the tree and then he fell off, or Then he got all muddy. Then he took off his clothes.)

This finding is consistent with the notion of a simple descriptive schema (McConaughy & Fitzhenry-Coor, 1980) in which the connections between events reflect the temporal ordering of story events. The children's use of then in this study also relates to the study of Katz and Brent (1968) who found a preference for the use of temporal connectors such as then in 6 and 7 year olds as opposed
to 11 and 12 year olds who preferred causal connectors.

However, the use of terms such as and then, and then may not necessarily indicate the children's awareness of temporal relationships. Rather, the use of these terms may reflect a ritualistic story convention in which the children believe that terms like now, and then, and then are used to put a story together. Their understanding of a story may involve the use of these temporal terms independent of their appropriateness for the story events or the actual meaning of the terms. The intonation used in describing those terms in a repetitive manner could support this ritualistic story convention idea. In testing the children, the author did notice some children using the and then, and then terms in a way that suggested they were not necessarily attuned to the temporal meaning of the terms. As story intonation was not systematically assessed, the use of such story conventions by very young children remains a speculation but potentially important in determining specific story differences between children and adults.

Children's use of and then, and then as opposed to because, and so may also indicate their focus on real time (e.g., turning the pages of the book in a particular order) as opposed to story time. Understanding that real time and story time are not always identical, requires cognitive and linguistic as well as specific story knowledge. While studies have shown that temporal ordering
is an important predictor of accurate story recall (Mandler & DeForest, 1979; Stein & Glenn, 1977) the importance of real time as a governing factor in understanding stories should not be underestimated (Baker, 1978). In fact, it is only with the Explicit Temporal Connections between pictures (reflective of real time) that a difference between the adults and children occurs. In the Explicit Temporal within picture Category (Connections between statements given for any one picture) no significant differences were found between the groups.

Whatever the children may understand about temporal relationships, it is important to note that they frequently do not use any connectives in telling their stories. Some of the children apparently do not recognize that events within stories are tied together in either a temporal or causal manner, and therefore do not understand an essential component of a story. Children, in addition, may not recognize that relationships between events are important to convey to the listener. A certain degree of egocentric behavior may be operating within the child's story schema. Piaget (1965) has noted egocentric behavior in young children and studies have shown that the understanding of causal connectives such as because follows a developmental progression (Corrigan, 1975). Although less plausible, the youngest children may not have full command of appropriate linguistic skills to express those temporal and causal relationships. The
use of various connectors in a story is probably not simply an issue of specific story knowledge but rather results from an interaction of linguistic and cognitive knowledge.

Adults are more likely to connect their stories with Explicit Causal terms (e.g., because, so), Implicit Temporal terms (and) or Miscellaneous terms (e.g., but, when, although). While the Miscellaneous terms are used by adults significantly more than by the children it is difficult with the present data to explain the use of any one Miscellaneous term because of their low frequency of occurrence. The adults may not only understand the meaning of more connectives but also have a more flexible notion of the usage of such terms to convey story relationships.

While the adult’s usage of Explicit Causal terms is predicted by any theory of story grammar, the production of the and connective is potentially quite interesting. While the AND relationship is not considered a complex one in most story grammars, this word can indicate causal, temporal or conjunctive relationships depending on the context. The possible meanings of and are precisely what lead to the coding scheme of Implicit Causal and Implicit Temporal. However as the story context did not always allow for easy discrimination, the Implicit Causal Category was coded very conservatively. It is quite possible that many of the and responses used by the adults reflect causal as well as temporal relationships which would further indicate story schema differences between children
and adults.

Besides differing on specific categories of story information such as intention statements and linguistic connections, it is evident by examining the story descriptions presented in Appendix D, that children and adults do not always tell the same story. The adult stories are less variable in that the adults produce more modal responses (most frequently occurring statements) than any of the groups of children. In addition, the second graders generate more modal descriptions than the nursery school children. This suggests that there is a trend towards producing more typical (in the sense of most commonly occurring) story statements.

However, in order to understand the difference in the production of story descriptions, it is necessary to focus on the actual story responses. One important difference in the story already mentioned relates to the situation of mistaken identity. There are several other differences in the stories that can be noted by looking at Table 12. For Picture 7, the common response given by the adults and the second and first grade children reflects an important event in the story--the pig getting dirty or being in the mud. This event then has further consequences in the story for the pig's behavior of going into the lake (e.g., He goes swimming to clean himself off.). This differs from the nursery school children's modal response which focuses strictly on the action
depicted in the picture of the pig being on a train.

The adult's modal response for Picture 15, He's dragged onto the stage, is in marked contrast to all the groups of children, whose common response is, He was playing the piano. The adult description involves certain inferences about the other events in the story relating to why the pig would be in this type of situation. The statement given by all the groups of children describes the event within the picture as opposed to information connecting pictures together.

The adults also demonstrate a specific story convention in the production of, They lived happily ever after, as a way to end their story. Interestingly, the children do not use this phrase to close their stories, although several of the children added something like, Well, that's the end. This sort of response is difficult to interpret as to whether it constitutes a formal ending of the story or just indicates the fact that the pictures have now ended, reflecting a reliance on real time. In addition, very few children use the formal beginning, once upon a time (see Appendix F). These findings contrast with Applebee (1978) who found that by 5 years of age, most children in the stories he analyzed used both formal beginnings and endings. The differences between the findings of the two studies may be the result of the type of story used in the present study rather than a demonstration of the lack of ability on the part of these
children to produce a formal ending or beginning. The story pictures used in this study were not of a fairy-tale nature, which may be more likely to involve such formal terms. Perhaps there may be qualitative genre-related developmental trends?

The results of the picture rearrangement task, while they may indicate something about memory differences, also may show that children, especially the nursery school ones, view the story in a very different manner from the adults and the experimenter. Therefore, the children's rearrangement of the pictures in a different way, may not necessarily reflect an error in memory but rather the operation of a different story schema.

These examples are intended to illustrate that children and adults differ on many of their descriptions of the pictures. The results demonstrate that on several important dimensions such as character intentions, linguistic connections, and story inferences, there are differences between children and adults in producing a story and that those differences may reflect the operation of distinct story schemata. The younger children seem to be more oriented towards simply describing the pictures, whereas the adults generate causal as well as temporal connections between story events. However, there were certain findings which are not on the surface at least, totally consistent with the original set of hypotheses. These results will be discussed with speculative
explanations offered to account for them.

One finding that was quite unexpected involved the large number of Explicit Intention Statements given by the first grade children. It was predicted that adults would produce these types of statements in telling a story but the responses of the first graders were puzzling. A closer look at the type of Explicit Intention Statements given by these children, helps at least in part, to understand this finding. Most of these children's Intention Statements came from the want category. The expression of want or desire may relate to an affective rather than a cognitive understanding of intentionality (which appears important in the adult stories). In the statement, the pig wanted to go swimming, the pig's intention to go swimming does not need to refer to the pig's thoughts about swimming, but rather focuses on a desire to engage in that behavior. It is quite possible that a notion of intentionality tied to specific wants and desires may be part of a child's story schema and therefore be used to describe the behavior of characters in stories. While this explanation can account for the performance of the first grade children it still leaves unexplained why it is only the first grade children who generate these statements. It is reasonable to assume that the first grade children understand enough about stories to try to explain why certain actions occur (as opposed to nursery school children) and that knowledge is
focused on motivations of \textit{want} and \textit{desire}. This focus may be the result of an egocentric process where the children recognize their own feelings about a situation and generalize those to others, in this case a story character. As children get older they learn that there are many reasons (e.g., cognitive as well as affective) for engaging in a particular behavior. However it is difficult with the present data to account for why second grade children do not engage in a process similar to the first grade children or to the adults. Further studies designed to assess specifically what children know about the meaning and use of \textit{want} as opposed to \textit{decide} in stories should help to explain why the first and second grade children performed differently in the Explicit Intention Category.

While Explicit Intention terms were not used by all of the children, terms such as \textit{going}, \textit{going to} and \textit{went} were frequently given as part of their story description. A category was specifically designed to account for statements that were difficult to evaluate as to whether they indicated intentionality. For example, when a person states, \textit{They are going to go to the movies}, it is often unclear whether they are conveying an intention about going to the movies or a description (and prediction) of that future event independent of any intention. The context of the situation may help us understand to some extent what the person means but such interpretations are always difficult. In terms of the present stories, it
was often impossible to determine what an individual meant when using a going, going to or went term in a particular sentence. Different explanations of what these terms might denote are offered.

Perhaps these words represent a ritualistic linguistic behavior used to describe the events that occur in the story. This strategy would involve sequencing events as: The pig is going camping and then the pig is going to go to sleep and the pig is going into the lake.... The use of going to in this context may serve to emphasize the character's actions rather than imply a motive or reason for those actions. Furthermore, by looking at the breakdown of the Implicit Intention Category, we can see that the difference in Implicit Intention Statements among the children is a result of the went term which was considered the most ambiguous of all the implicitly coded terms. Second grade children may be using went to denote a consistent use of past tense rather than an idea of intentionality.

Alternatively, these terms may reflect children's developing understanding of intentionality (in linguistic and/or cognitive expression). The use of terms such as going to could represent an intermediate stage when children are beginning to learn how to express the intentional nature of character's behaviors. In learning about intentionality, the children may use an expression they already know to convey a new idea. Only after the
concept becomes firmly rooted will new linguistic expressions develop. This account assumes that children know something about intentionality in stories that does not always get tapped in recall or summarization experiments because of the different linguistic expressions used by adults and children.

Another unexpected finding occurred in the picture inference category. It was hypothesized that the youngest children might make more picture inferences if their idea of a story is more bound to a pictoral sequence rather than a unified verbal sequence. That is, in telling a story they would describe the events in each picture in great detail and then may link these events together with a temporal connector such as and then. This behavior would be indicative of the simple descriptive schema outlined by McConaughy and Fitzhenry-Coor (1980). In concentrating on describing the pictures as opposed to integrating them together, inferences about each picture would be likely to occur. However, it was the second grade children who produced the largest number of picture inferences as opposed to the adults. By looking at the results from the Linguistic Connections Category again, it can be seen that the second grade children produce more explicit temporal connectors than any other group. These children may be particularly sensitive to the temporal sequencing of the pictures and as they tell a story about the pictures, elaborate about the events in each individual
picture without necessarily developing a complex hierarchical story schema. However, the Picture Inference Category was coded very conservatively because it was often difficult to distinguish between a description of the present action in a picture and an inference about that description. This conservative coding procedure may in part account for the relatively low means in the Picture Inference Category for all the groups.

A final unexpected result came in the Emotions Category. The analysis showed no significant differences for these terms among the different age groups. This result contrasts with Flapan's work (1968) in which she found that 6 year old children had trouble inferring emotions for the characters in the movies she presented to them. The contrary findings of these two studies may reflect differences in the different types of stimuli used. Character Emotions and Reactions are easier to portray in an animated sequence as opposed to a static sequence that is represented by storybook pictures. However, it is puzzling that adults did not place more emphasis on Emotion Statements in telling their story. Future testing with the use of other types of story pictures may indicate that the lack of differences found with Emotion Statements are the result of the particular story used in this study.
Conclusion

While the purpose of the present research was to characterize particular aspects of story knowledge and provide evidence for the operation of different story schema for adults and children, it is arguable that many of the specific issues raised in the discussion reflect differences in general world knowledge rather than any special story knowledge. In reviewing the results, it is often difficult to determine which of the above factors is responsible for the differences that were found.

Several results seem to be explainable both in terms of world knowledge and story knowledge. In fact, if we could empirically partial out what a child knows about the world and the specific ways that he/she expresses that knowledge, it is not clear that concepts of character intentions, thoughts and emotions require any special knowledge of stories. The differences that are found in the production of such statements may represent the child's developing social and cognitive awareness that people have intentions, thoughts and emotions rather than a special story schema for such information. Likewise, the use of certain linguistic connections to link stories together may be more the result of general cognitive and linguistic abilities than recognizing that stories have particular connective sequences such as AND, THEN or CAUSE. This argument implies that structural theories of story comprehension (e.g., story grammars) may not be necessary to
account for much of what occurs in our understanding of stories.

However, other findings from this study could indicate that there are specific aspects of stories that require special knowledge in order for appropriate comprehension to occur. The knowledge that stories typically involve various hierarchical arrangements may not simply reflect changes in cognitive inferencing abilities. There are many cases where the characters interact in special ways or events occur that are not arranged in a simply sequential manner, (e.g., flash-backs in comic books or character reminiscences). In addition, in fantasy we suspend reality and are willing to assume the occurrence of events that we may not understand in terms of our world knowledge. The use of certain stylistic conventions (e.g., special linguistic terms or the idea that stories usually begin and end in certain ways), may also reflect a specific story knowledge.

From the stories produced in this study, it is probably impossible to differentiate the use of story knowledge from the use of world knowledge in the production of a story. Perhaps, as more attention is directed at understanding specific knowledge structures, distinctions between story and world knowledge can be empirically demonstrated. Similar difficulties, of course, plague linguistic theory; it comes as no surprise here.

While this issue is important to consider, the
results of this study certainly show that children and adults do not give similar information when they tell a story. The differences in terms of character Intentions and Thoughts, Linguistic Connections, Story Inferences, and Modal Responses can all be taken to indicate a qualitative difference in conceptualizing a story from a series of pictures.

Section II
Use of Definite and Indefinite Reference in the Stories

Coding of Referential Terms. In order to get an indication of the different types of reference found in the stories produced by the children and adults two reference coding schemas were developed. The first coding system involved evaluating each Noun Phrase in a story in terms of the various instances of reference. The specific reference terms that composed this coding schema were: articles, nouns with no articles, demonstratives, pronouns, and several special cases. The articles were evaluated as either DEFINITE the or INDEFINITE a, one, some, reference. The DEMONSTRATIVES included this, that, those, these, and there. All pronouns were included in the analysis but the major ones that were produced were: he, they, him, it, them and their. In addition, that was evaluated not only as a demonstrative but also as a RELATIVE PRONOUN (The pig that went camping) or an ADVERBIAL CONNECTOR or complimentizer (Everyone realized
that Mr. Piggy didn't know how to play). Finally, nouns with no preceding articles (NULL `CASE) were examined and classified in four ways: generic nouns (They were playing music), plural countable nouns (They were picking apples), proper nouns (And Mr. Piggy was going camping) and familiar nouns (He was going to town. He is all dressed up in evening clothes. They ate supper.).

To summarize, the following categories were assessed:

a. nouns with definite article reference
b. nouns with indefinite article reference
c. nouns with demonstrative
d. pronouns
e. relative pronoun, that
f. adverbial connector, that
g. nouns with no article (i.e., generic case, plural countable case, proper nouns, and familiar nouns)

The second coding system dealt with more specific types of reference. The main purpose of this coding procedure was to evaluate instances of the relationship between various referential concepts. The overall categories that were coded are:

1. change from indefinite to definite reference
2. anaphora
3. coreference
4. gapping
5. indefinite mentioned only once
6. continuation of indefinite referent to same indefinite referent
7. introduction of two characters in one sentence
8. mentioned once as definite in terms of either entailment or context assumed definite

As one of the basic uses of reference in discourse is to indicate sameness of referent by a change in the referring expression, the first category that was measured considered the change from an indefinite referential expression for a term to a definite referential expression. For example, the initial mention of The pig climbing up a tree, followed by the statement, He fell out of the tree, would count as a change in referent.

The second category which was labelled as anaphora, involved referring back in a new sentence to a previously mentioned person, event, and item. An example of anaphora found in the stories was: The pig's tent blew away. He climbed up a tree to get it back. In this case, the it term refers back to the pig's tent.

The coreference category was similar to the anaphora category except that it focused on reference within a sentence. In other words, this category involved referring back to a previously mentioned person or object in a noun phrase. The pig took off his clothes is an example of coreference, in that his in this case refers back to the pig.

The fourth category that was considered, which was
called gapping, involved the deletion of either a verb or noun constituent part of a sentence. For example, in the statement, And climbed the tree to get his tent, the pronoun he is missing. This statement would be considered a gapped phrase.

Terms that were only mentioned once and referred to in an indefinite manner were also evaluated. In addition, terms that were used more than once but did not change from their indefinite position were also recorded (e.g., He climbed a tree. He fell off a tree.).

Another example of a referent that was examined in the coding was the mentioning of two or more characters in a sentence. This referential process involves specifying two distinct referents in one sentence and is an essential part of telling a story about the pictures where there are multiple characters. For example, in Picture 13 the main character meets two other pigs. In order to describe that event, the story-teller must refer in some manner to both the main character (the pig) and the new characters (two pigs dressed up in suits). The statement, And then he came to see the other men, is an instance of an individual referring to several characters in one utterance.

The final aspect of reference explored in the present study involved the use of a definite referring term, the, without any previous introduction of that referent. There are several different ways this process
can occur. In some cases, the new referent may be logically entailed, more or less, by a previous concept, as in the statement, When I was driving my car the wheel fell off. In other situations, the new referent may be assumed by the story-teller to be so familiar to the listener because of the context of the story, that no introduction of the referent is necessary. These terms were labelled as context definite reference.

Analysis of Referential Data. The first coding system focused on evaluating the frequency of occurrence of various referential terms. In addition to tabulating these values, the total number of Noun Phrases for each person was calculated. An ANOVA for age on the number of Noun Phrases revealed that adults produced significantly more Noun Phrases than did the other age groups, F(3, 53) = 22.65, p < .001. The means and standard deviations are shown in Table 16.

As each reference term in this analysis was associated with a particular noun phrase, it could be argued that any differences found between adults and children were the result of a greater production of Noun Phrases by the adults. Therefore, it was decided to correct for this difference by dividing each referential term used by an individual by the number of Noun Phrases for that person. This correction should serve to equalize the groups in terms of their production of the various kinds of referent related to the Noun Phrases.
Table 16

Means and Standard Deviations for Number of Noun Phrases as a Function of Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun Phrases</td>
<td>42.8</td>
<td>59.8</td>
<td>55.3</td>
<td>109.7</td>
</tr>
<tr>
<td></td>
<td>(9.2)</td>
<td>(21.1)</td>
<td>(8.3)</td>
<td>(41.8)</td>
</tr>
</tbody>
</table>
The ANOVA on the null category showed a significant effect for Age, $F(3, 53) = 5.3, p < .001$. The means and standard deviations are presented in Table 17. The follow-up analysis demonstrated that adults produced more responses that did not have an article before them than did either the nursery school or first grade children. The polynomial analysis showed a significant linear trend, $F(3, 53) = 14.5, p < .0001$. A breakdown of the various null types showed that the familiar case, $F(3, 53) = 3.3, p < .02$, and the proper name case, $F(3, 53) = 4.1, p < .009$, contributed most to the significance of the effect in this category. The means and standard deviations are shown in Table 18.

The demonstrative category (this, that, those, these) was found to be significant for Age, $F(3 53) = 2.8, p < .04$, and the follow-up tests showed that the first graders produced more demonstratives than did the nursery school children. Table 19 shows the means and standard deviations for this category.

All of the other categories in this coding system were found to be nonsignificant for Age:

a. Definite term: $p > .57$
b. Indefinite term: $p > .07$
c. Pronoun: $p > .43$
d. Relative Pronoun: $p > .07$
e. Adverbial connector: $p > .15$
Table 17

Means and Standard Deviations for Number of Null Terms as a Function of Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.4 (3.4)</td>
<td>3.8 (3.0)</td>
<td>5.0 (3.6)</td>
<td>8.3 (3.7)</td>
</tr>
</tbody>
</table>

\(^a\) Tabled values given as percentages of total number of noun phrases
Table 18

Means and Standard Deviations for Number of Familiar and Proper Name Terms as a Function of Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Familiar</td>
<td>1.3 (1.4)</td>
<td>2.8 (2.7)</td>
<td>3.3 (3.8)</td>
<td>4.1 (1.8)</td>
</tr>
<tr>
<td>Proper</td>
<td>.24 (.70)</td>
<td>.35 (.82)</td>
<td>.00 (.00)</td>
<td>2.2 (3.6)</td>
</tr>
</tbody>
</table>

a Tabled values given as percentages of total number of noun phrases
Table 19

Means and Standard Deviations for Number of Demonstrative Terms as a Function of Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.8</td>
<td>5.9</td>
<td>2.7</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>(2.6)</td>
<td>(7.1)</td>
<td>(1.4)</td>
<td>(3.8)</td>
</tr>
</tbody>
</table>

a Tabled values given as percentages of total number of noun phrases
The second coding system involved calculating the number of responses that occurred in each of these referential categories. Each category was composed of reference concepts that in general involved the relationship between more than one concept in a story.

The number of changes from the indefinite to the definite category was significant for Age, $F(3, 53) = 5.1, p < .003$. The means and standard deviations are given in Table 20. The follow-up analysis showed the adults produce more responses in this category than any of the other groups, and a significant linear trend, $F(1, 53) = 12.7, p < .0008$, indicated an increase with age in the number of responses in this category.

The other significant effect for age was found for the coreference category, $F(3, 53) = 6.8, p < .0006$. The pattern of results revealed that both the adults and the second graders gave more coreferent statements than did the nursery school children, $p < .05$. A significant linear trend was found, $F(1, 53) = 20.0, p < .0001$. The means and standard deviations are given in Table 21. In addition, every coreferent situation was assessed in terms of whether it involved a noun and noun coreferent, a noun and pronoun coreferent, or a pronoun and pronoun coreferent, and the pattern of results was the same for each specific coreferent category as for the overall coreferent category.
Table 20

Means and Standard Deviations for Number of Referring Terms that Move from Indefinite to Definite as a Function of Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.3 (4.1)</td>
<td>5.9 (2.5)</td>
<td>8.2 (3.9)</td>
<td>11.5 (5.6)</td>
</tr>
</tbody>
</table>

* Tabled values given as percentages of total number of statements
Table 21

Means and Standard Deviations for Number of Coreference Terms as a Function of Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15.9</td>
<td>22.6</td>
<td>28.8</td>
<td>31.9</td>
</tr>
<tr>
<td></td>
<td>(10.4)</td>
<td>(12.6)</td>
<td>(11.0)</td>
<td>(8.9)</td>
</tr>
</tbody>
</table>

* Tabled values given as percentages of total number of statements
Additionally, chi-square analyses were conducted which focused on whether a definite or indefinite Referring Expression was used to introduce a character in the story. A 2 x 4 chi-square analysis was performed investigating the effects of Referring Expression and Age and a significant effect was found, $x^2(3) = 12.69$, $p < .005$. An examination of the frequencies presented in Table 22 indicate that the nursery school and first grade children give more definite responses while second grade children and adults give more indefinite referring terms.

A 2 x 4 chi-square analysis was conducted on the use of a definite or indefinite referring term to introduce the dog character and was found to be nonsignificant, $x^2(3) = p > .08$. A chi-square analysis was not appropriate for the use of a definite or indefinite referring term to introduce the scarecrow character because over half of the expected frequencies were below 5. The use of referring terms for the introduction of the other characters in the story was very variable. For example, in describing the two pigs in Picture 13 many different terms such as: two men, these guys, two other guys, a couple of other pigs, these people, some people, two people, two musicians were all used. Therefore, it was very difficult to categorize the responses for analysis.
Table 22

4 X 2 Contingency Table for Age and Referring Expression

<table>
<thead>
<tr>
<th>Referring Expression</th>
<th>Indefinite</th>
<th>Definite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery School</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>First Grade</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Second Grade</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Adult</td>
<td>13</td>
<td>1</td>
</tr>
</tbody>
</table>
Discussion

As has been previously discussed, the use of reference serves an important role in stories. Various characters, events and objects need to be introduced into the story. In addition, referential expressions are commonly used to link story information together especially between statements (coreference) and between sentences (anaphora). Many referential phrases also aid in story processing by reducing the amount of linguistic information in the discourse, thereby decreasing the listener's burden in understanding the narrative.

It had been expected that adults would produce more referential expressions in their stories than the children particularly in terms of anaphora and coreference. The findings indicated that on several dimensions such as the introduction of the main character, there were differences between children and adults in their referential processes. However, in the use of anaphoric expressions children and adults were not obviously that different.

_Discourse referent_ (Karttunen, 1965) involves the introduction of a new idea into the discourse with an indefinite expression (e.g., _a_) and then in order to convey sameness, the use of a definite article (e.g., _the_). Adults use more referring expressions that involve going from an indefinite to a definite term to mark the same concept. It is important to remember that a correction
factor was applied to this data. Therefore, the production of a greater number of discourse referents is not merely a result of the production of more story statements by the adults. Rather, this finding suggests important differences between children and adults in terms of their understanding of a story.

First, this finding indicates that adults are more sensitive to the listener's perspective in the story. As the present story involves the occurrence of many objects and events which are all important in the development of the story, the introduction of each of these concepts must be clear for the reader to understand the story (e.g., A train is going by and then Mr. Piggy lands in the train.). Besides the introduction of new objects and events, the story revolves around the characters whose identity must be clearly established for the story to be comprehensible to the listener. The results of the analysis of how the main character, the pig, was introduced into the story showed that the children do not necessarily appreciate the reader's point of view in trying to understand the story. The children, particularly the younger ones, were likely to introduce the character of the pig in a definite manner (the pig or he) in contrast to the second grade children and the adults who used an indefinite term (a pig), a proper name (Mr. Piggy) or a demonstrative (that pig).

The possibility exists that children do not ignore
the listener's perspective but rather are uncertain about what the listener already knows about the story because the experimenter had shown the children the pictures once before they were asked to give a story. Therefore, the children may have been responding to a specific story-telling strategy in using the definite referent to introduce the main story character. While this possibility cannot be totally ruled out, the evidence already presented is very suggestive of some developmental differences in this referential process, particularly in the light of the findings of Karmiloff-Smith (1979) and Warden (1976). For example, Warden found that younger children have trouble using identifying indefinite terms accurately and that it is not until around 9 years of age that children use referential utterances in a way that is appropriate to the listener's perspective.

Furthermore, several of the nursery school children refer to the pig character in an indefinite fashion throughout the story, making it difficult to interpret whether they see the pig as the same character or a new character.

While adults seem more attuned to the listener's perspective, the difference between children and adults on the production of discourse referents may also indicate that adults are functioning with a different understanding of the story. The adults seem to realize that there should
be a continuity between events or objects in a story. In particular, the cohesiveness of any story depends heavily on the repetition of the same characters or events throughout the story. Referential terms serve this function in a story. For example, the concept of the tent introduced in the second picture as \textit{a tent}, soon plays an important role in the events of the next few pictures (\emph{e.g.}, \textit{the tent blows up a tree and the pig climbs up the tree to get it}). The appropriate use of referential expressions emphasizes the critical role of cohesiveness in the adult's story production.

The finding that adults produce more noun phrases with the null case (no preceding article) provides additional support for the hypothesis that adults operate with a different story schema. The breakdown of the null class shows that familiar terms and proper names accounted for the majority of responses given by the adults. The use of proper names most probably reflects a specific story convention, in that it very often is an important way to distinguish characters from one another and to confirm their identity across various situations.

The evidence indicates that discourse referents are more commonly used by the adults presumably to convey important story information in an efficient manner for both the story-teller and the story-listener. These referential expressions may provide the adults with a mechanism for stressing the key element of story...
cohesiveness.

Likewise, anaphora and coreference are especially important processes in linking a narrative together. They help provide interlinguistic cohesion (Karmiloff-Smith, 1979), in that they can link parts of a text together either in terms of phrases or sentences. The results from the stories indicate that while adults differed from children in the production of coreferent phrases, they did not differ in the use of anaphoric terms. While these two findings seem at odds with one another, it will be argued that by looking at the types of coreference and anaphora used by the children and adults, the differences in absolute numbers of occurrences of coreference statements may not be the important variable for consideration. The coreferent statements were assessed in terms of noun to noun coreference, (The Pig went to the lake and The Pig went swimming), noun to pronoun coreference (The pig climbed the tree and he fell off), and pronoun to pronoun coreference (He rode on the train and then he got off). The vast majority of coreferential phrases were in the pronoun to pronoun category which can be considered the most complex coreferent arrangement because of the potential ambiguity of the referring pronouns.

While there are differences in the amount of coreference used, all age groups do use coreferential terms in their stories and the form is the same. This
shows that while adults use more coreferential statements to connect the story together, the function of the referential process does not appear to be different for any age group.

Similarly, by looking at the anaphoric phrases given by the children and adults, no differences in their usage or form were detected. Many of the anaphoric phrases used the pronouns he, and it in cases where there was no ambiguity in the pictures. For example, the anaphor it, in the statement, *He climbed up the tree to get it* (for Picture 5) is quite unambiguous given the context of the pictures. Therefore while adults and children may differ in production of coreferential phrases within the story, the form of those phrases does not seem to differ. In a similar way, the usage and form of anaphoric phrases to express story relationships appeared equivalent for children and adults.

This study provided a general idea of how various referring expressions operate in stories. Studies that are designed to specifically evaluate the various expressions discussed here are necessary. For example, there may be situations in which children would inappropriately apply coreferential or anaphoric procedures in stories. This may be the case when there are many characters interacting together in a story and it is necessary to explain their relationship to one another or to the events in the story. Such ambiguous situations
may call for the use of complicated linguistic expressions that children may not understand as appropriate for story-telling. More work needs to be done to assess under exactly what circumstances children have problems with various discourse referents in stories.

Section III

Categorization of Responses to Story Question in Study II. As previously described, participants in Study II were asked a series of questions about the verbal story (Appendix C). The answers to each question were recorded and were grouped together in terms of their frequency of response. The participants' answers to the 22 questions are presented in Appendix G.

These questions were designed to tap various kinds of story knowledge and were classified into several general categories. Some of the questions (3, 7, 16, and 22) asked the participants to explain how the pig felt in various situations. These questions composed the emotions category. A second category involved questions about events explicitly depicted in the pictures (4, 6, 8, 12, 19, and 21). A third category of questions (5, 13, 20) dealt with a character's thoughts or intentions in particular situations. Several questions of a general nature were asked (1, 2, 10) that involved setting or world knowledge information. The final set of questions involved inferences about the story. These questions
asked for information that was not specially presented in any one picture but rather reflected an integration of story events (9, 11, 14, 15, 17, and 18).

**Variability of Answers to Story Questions.** The answers to the questions were evaluated in several different ways to see what types of differences existed between the responses of children and adults. In essence, there was no one correct answer to each question. One way to measure variability in the answers is to determine the most frequently occurring response (modal) for each of the 22 questions. In general, each person gave only one answer so comparison between groups was not a problem. In addition because the answers were not detailed, grouping the responses together was relatively easy in terms of their conceptual similarity. An ANOVA was then performed on the number of modal responses for each person across the questions. A significant effect was found for Age, $F(3, 53) = 5.86, p < .002$. The means and standard deviations are presented in Table 23. The follow-up analysis showed that the nursery school children produced significantly fewer modal responses in their answers to the questions than did any of the other age groups (first and second grade children and adults).

**Correspondence Between the Verbal Story and Answers to the Questions.** In order to get an assessment of the relationship between the information in a person's story and his/her answers to the questions, a coding
### Table 23

Means and Standard Deviations for Number of Modal Responses for Answers to Story Questions as a Function of Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8.9 (2.3)</td>
<td>13.2 (3.3)</td>
<td>13.2 (2.6)</td>
<td>12.7 (2.3)</td>
</tr>
</tbody>
</table>
scheme with 10 different categories was developed. The purpose of these categories was to evaluate the correspondence between the responses to the questions and the storied produced by the participants to the pictures in order to estimate if a person could give more information than he/she produced in the story. The list of categories appears in Appendix H.

The first three categories account for instances where the information for a question was not mentioned in a person's story and the person responds in one of three ways: no answer, an I don't know answer, or some definite answer. The next five categories involved the situation where the person mentioned the question information in their story. Two of the possible answers were the same as above: no response or an I don't know response. The three other responses were designed to measure: a contradictory response, a different though not necessarily contrary response or finally a consistent response. The final two categories dealt with situations in which there was some mention of the idea of the question information in a person's story but not the exact question information itself. The person either gave some answer or said I don't know.

The participants' responses to each of the 22 questions were evaluated in terms of these 10 categories. The frequency of responses for the 10 categories was computed and a 10(Category Type) x 4(Age) Mixed Model
ANOVA was performed. Table 24 shows the means and standard deviations. The results revealed a significant effect for Category Type, $F(9, 315) = 65.8, p < .0001$, and for the interaction of Category Type and Age, $F(27, 315) = p < .0001$, and a nonsignificant effect for Age, $F(3, 35) = .92, p > .44$. One-way ANOVA's on Age were conducted to assess the interaction.

No significant age effects were found for categories 1, 3, 5, 8, 9, and 10 at $p > .06$. It is interesting to note that very few individuals gave contradictory information from their stories in answering the questions (Category 5). Category 2 which involves NOT mentioning question information in the story but giving some answer was found to be significant for Age, $F(3, 35) = 5.0, p < .005$. The follow-up analysis indicated that nursery school children gave more answers to questions without having mentioned the question information in their story than did either the adults or second grade children. The pattern of means constituted a significant linear trend, $F(1, 35) = 13.7, p < .0007$.

While the number of responses for category 4 (mentions story information but answers I don't know) was found to be significant for Age, $F(3, 35) = 7.09, p < .0008$, a glance at the means shows that the first and second graders and the adults gave no responses of this nature. Therefore, the results of this category are impossible to evaluate.
Table 24

Means and Standard Deviations of Responses for Each Story Correspondence Category as a Function of Age

<table>
<thead>
<tr>
<th>Story Correspondence Category</th>
<th>Nursery School</th>
<th>First Grade</th>
<th>Second Grade</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Does not mention question information, answers I don't know</td>
<td>.70 (.10)</td>
<td>.30 (.67)</td>
<td>.25 (.46)</td>
<td>.00 (.00)</td>
</tr>
<tr>
<td>2 Does not mention question information, gives and answer</td>
<td>10.9 (11.1)</td>
<td>5.2 (3.0)</td>
<td>2.8 (2.6)</td>
<td>1.2 (1.0)</td>
</tr>
<tr>
<td>3 Does not mention question information, gives no answer</td>
<td>.00 (.00)</td>
<td>.10 (.31)</td>
<td>.00 (.00)</td>
<td>.00 (.00)</td>
</tr>
<tr>
<td>4 Mentions question information, answers I don't know</td>
<td>.60 (.69)</td>
<td>.00 (.00)</td>
<td>.00 (.00)</td>
<td>.00 (.00)</td>
</tr>
<tr>
<td>5 Mentions question information, answer is contradiction</td>
<td>.00 (.00)</td>
<td>.20 (.42)</td>
<td>.38 (.74)</td>
<td>.09 (.30)</td>
</tr>
<tr>
<td>6 Mentions question information, answer is different but not contradictory</td>
<td>1.0 (1.0)</td>
<td>2.3 (1.6)</td>
<td>2.5 (1.4)</td>
<td>4.0 (1.2)</td>
</tr>
<tr>
<td>7 Mentions question information, answer is consistent</td>
<td>4.0 (2.6)</td>
<td>6.1 (2.7)</td>
<td>8.5 (4.0)</td>
<td>10.80 (3.1)</td>
</tr>
<tr>
<td>8 Mentions question information, gives no answer</td>
<td>.00 (.00)</td>
<td>.00 (.00)</td>
<td>.12 (.35)</td>
<td>.00 (.00)</td>
</tr>
<tr>
<td>9 Mentions idea of question not question itself, given an answer</td>
<td>7.3 (2.1)</td>
<td>7.2 (1.2)</td>
<td>7.5 (.9)</td>
<td>5.8 (2.0)</td>
</tr>
</tbody>
</table>
(Table 24, cont'd)

<table>
<thead>
<tr>
<th>Story Correspondence Category</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Mentions idea of question not question itself, answers I don't know</td>
<td>Nursery School</td>
</tr>
<tr>
<td></td>
<td>.50</td>
</tr>
<tr>
<td></td>
<td>(1.0)</td>
</tr>
</tbody>
</table>
The ANOVA on the response for category 6 showed a significant effect for Age, $F(3, 35) = 8.6$, $p < .0001$. This category included answers that were different but not necessarily contradictory, while mentioning the question information in the story. The follow-up analysis showed that adults gave more answers that were different but not necessarily contradictory with their story, than did the nursery school or first grade children. The linear trend analysis was also significant, $F(1, 35) = 24.5$, $p < .0001$.

Category 7 responses were found to be significantly different for Age, $F(3, 35) = 8.7$, $p < .0002$, and showed that the adults produced more answers that were consistent with their stories than did the nursery school and first grade children. Also, the second grade children gave more of these responses than did the nursery school children. The linear trend was significant, $F(1, 35) = 25.9$, $p < .0001$.

In summary, the results indicated that the nursery school children gave more answers to the questions without having mentioned the question information in their story than did the adults and second grade children (category 2). In category 6, adults gave more answers that were different but not necessarily a contradiction of their story than did the nursery school and first grade children. In category 7, which involved giving consistent information from story to question, the adults
gave more of these responses than did nursery school or first grade children. The pattern of means in all three cases constituted a significant linear trend.

Discussion

The main purpose of the second study was to determine if the children could relate more information about the pictures and the story than was evident from their original story production. The results provide support for the main conclusion of the first study which was that children and adults appear to be using quite different story schemata in processing the picture information. This study indicates that in answering the questions, first and second grade children and adults as opposed to nursery school children gave similar answers as evaluated by the modal response analysis. Previous studies have shown that first grade children can often correctly answer questions about specific types of story information even though they were not able to recall that information about the story (Stein & Glenn, 1977). In answering the specific questions presented to them, the first and second grade children appear very much like the adults whereas the results of the first study showed that in generating a story they are quite different from the adults.

Additional evidence for the difference between the youngest children and the adults in terms of the operation of various story schemata comes from the category data. The nursery school children are able to provide answers
to the questions even though those answers are not mentioned in their story. This strongly suggests that even though the same information in the pictures is available to the nursery school children in producing a story, they seem to form a very different story from the adults and older children, presumably because of the operation of a different type of story schema. Not surprisingly, the majority of answers given by the adults were classified as either different but not contradictory with their story or the same as their story. The second grade children also produce answers to the questions that were consistent with their story. This shows that the adults and second grade children were producing a story that was similar to what the experimenter focused on as some of the important aspects of the story.

This study also provides a demonstration of the difference between using a production and a probe task. While the older children (first and second grade) are somewhat different from the adults on the story production task in terms of the modal descriptions of the story they produce, they are the same as the adults in producing modal answers to the questions. Therefore, information from the probe study and the story production study may be a good indication of the range of story knowledge possessed by the children. The probe study may give a base-line of information of what the children understand about stories, whereas the story production
task provides a way to assess what the children may think are the important aspects that define a story.

Concluding Comments

The purpose of these studies was to explore what children know about stories especially in terms of qualitative as well as quantitative differences in story understanding. This dissertation was intended to provide descriptive information about similarities and apparent differences in story production between children and adults on several specific dimensions. The findings indicate that children and adults differ in telling a story on certain types of character intention and thought statements, integrate the story differently, use different types of linguistic expressions to connect the story together, and describe the events in the pictures differently. In addition, it was found that children may not be as sensitive to the appropriate use of discourse referents especially as that relates to story cohesiveness. Finally, when probe questions are used, adults and first and second grade children appear quite similar in their responses.

The results discussed in each section show that in certain specific areas, children and adults do not produce the same story information. These differences are evidence for the use of a different story schema, which may imply a qualitative as well as a quantitative
difference in producing a story from a series of pictures. This suggests that children especially the younger ones are not necessarily miniature adults operating with an immature story schema (i.e., one that is not qualitatively different). Rather, children through their experiences with stories may initially possess a very different idea of what constitutes a story from an adult. The precise nature of a child's story schema is of course not yet known. In fact, children may use different schemata depending on the type of story to be processed. There may also be important individual differences in both the comprehension and production of story information (Mosenthal, 1979). However, from the findings of this study and several other ones (Applebee, 1978; Mosenthal, 1979; McConaughy & Fitzhenry-Coor, 1980), we can assume that the young children's schemata most probably focuses on descriptions of actions, may be pictorially oriented and represent a sequential ordering of events. Exactly how and why changes in a story schema occur or what is the specific developmental framework for this change has not been fully explored. While the present study intentionally focused on a small age range of children (nursery school to second grade) to assess subtle developmental changes, by looking at a wider range of ages and levels of cognitive development it may be possible to chart the range of developmental change. The result of this dissertation is in contrast to the
findings of Poulsen, et al. (1979) and Day et al. (1978) who studied children's production of stories using a pictorial format. They claim that children's schemata are organized and function in much the same way as adults. The results presented in this paper argue for qualitative differences in the use of story schemata.

All of this assumes that it is possible to characterize what individuals do when they comprehend, recall and produce stories as indicative of a special kind of knowledge that relates uniquely to stories. However, there is certainly reason to question the validity of this assumption. In many cases, it seems virtually impossible to differentiate what an individual knows about the world from what he/she knows about stories. This suggests that the study of stories, particularly from a story grammar perspective may not be a totally profitable endeavor. While the present findings do not directly evaluate the validity of story grammars, they do bear on the problems of theoretically distinguishing world knowledge from story knowledge. Clearly, there are specific types of information that are story dependent and an understanding of these issues may be useful as stories are an important part of our developmental history.

However, more studies are needed to assess the role of story and world knowledge in comprehending and producing a story and to ascertain more fully what developmental changes result from these different types of knowledge.
Appendix A: Pictures
Appendix B

Picture-Generated Stories

Nursery School 1 Male

Picture 1
- The little pig is going to have a campout.
- The little pig is setting up the tent.
- He is sleeping in the tent--I mean looking at it.
- And the tent blew off.
- But got stuck on the tree and the little pig is trying to get it by climbing the tree.
- Now the branch broke and the pig jumped in after the tent.
- And he landed in the mud and he got all dirty.
- And he was going to take a tub.
- And he taking his shirt off and diving in for a swim.
- And the piggy's in there and he got up and a dog took his clothes.
- And then he hopped out and he did not have any clothes and then he saw some clothes--a hat and clothes.
- Then he put it on.
- Then he walked and saw some more piggies.
- And the other piggy brought him to an audience.
- And he played.
- And then he fell off the stool.
- And he ran.
- And he ran.
- And he saw some more piggies and he played.

Nursery School 2 Male

Picture 1
- He's carrying the stick.
- He's making the tent.
- He's sleeping and looking out of the tent.
- The grass fell.
- He's climbing a tree.
- He jumped out of the choo-choo.
- Now he's in the choo-choo.
- Now he's all muddy.
- He just came out of the water.
- The dog ran away with his clothes.
- He don't got no clothes on.
- He's holding his hat.
(Nursery School 2 Male, cont'd)

Picture 13 He's got his hat on.
" 14 He's touching the curtains.
" 15 He's playing the piano.
" 16 He's all done playing the piano.
" 17 He's running.
" 18 He's climbing the ladder.
" 19 They are playing.

Nursery School 3 Male

Picture 1 A pig went hiking.
" 2 A pig having a campout.
" 3 A windy day storm.
" 4 A nasty windy day.
" 5 A pig trying to get his tent down, climbing a tree.
" 6 A pig trying to catch a train.
" 7 A pig going to Brooklyn.
" 8 A pig waiting at a subway station.
" 9 A pig going to take a swim.
" 10 And the dog stole his clothes.
" 11 A pig and the scarecrow because he going to get clothes off the scarecrow.
" 12 A man taking a walk around the woods in the country.
" 13 A meeting of pigs.
" 14 An opera with pigs.
" 15 A pig singing.
" 16 The pig that barged the door in.
" 17 The pig running away.
" 18 The pig running towards the wagon.
" 19 The pig having a dance.

Nursery School 4 Male

Picture 1 He's going over to the west.
" 2 He's camping.
" 3 Now the wind comes.
" 4 And blows his tent away.
" 5 He's climbing up the tree to get it.
" 6 Now it (the tent) falls and he jumps.
" 7 Now he's having a ride.
" 8 Now he's looking at a lake.
" 9 Taken off his clothes.
" 10 A dog getting his shirt and the pig's in the water.
" 11 Now he's looking at the scarecrow.
" 12 He's putting on the scarecrow's clothes.
" 13 Now he's talking to two other pigs.
(Nursery School 4 Male, cont'd)

Picture 14  Now he's going to show them something.
    "  15  Now he's playing the piano.
    "  16  The guy (pig) is falling off the seat.
    "  17  Now the guy's running somewhere.
    "  18  Ah, now he sees one pig picking apples and
two pigs singing hi!
    "  19  O.K. He's helping those pigs.

Nursery School 5 Male

Picture 1  He was walking in the woods.
    "  2  He is making up a tent.
    "  3  He's in the tent.
    "  4  The wind blewed away the tent.
    "  5  He's climbing up a tree.
    "  6  He's jumping over a train.
    "  7  He's in the coal car.
    "  8  Now he's looking.
    "  9  He's going for a swim.
    " 10  He's in the water the dog took his clothes.
    " 11  He's bare only with a swim suit on.
    " 12  Okay. Now he's dressed up like Abraham Lincoln.
    " 13  And now he meet two men.
    " 14  And he's up on the stage with the man.
    " 15  He's playing the piano.
    " 16  Okay. Now other pigs came running and scared
him.
    " 17  And then he ran out of the church.
    " 18  Then he ran to people picking apples on an
apple tree.
    " 19  Now they are juggling apples and that's it.

Nursery School 6 Male

Picture 1  He's going camping.
    "  2  And now he's getting ready to set up his tent.
    "  3  And now he's sleeping in his tent.
    "  4  And now it's raining and windy.
    "  5  And now he's climbing the tree.
    "  6  And now they blew him over the train.
    "  7  And now he's on the train.
    "  8  And he's off the train.
    "  9  And now he's going for a bath in the water.
    " 10  And now he has to stay in because the dog took
his clothes.
    " 11  And then he got out of the pool.
    " 12  And now he's a piano player.
    " 13  Now he's going to see his friends.
(Nursery School 6 Male, cont'd)

Picture 14 And now he's going to play some music.
   " 15 And now he's playing.
   " 16 And now he's playing.
   " 17 And now he's running.
   " 18 Now he's running.
   " 19 And now he's getting some apples.

Nursery School 7 Female

Picture 1 He was walking along.
   " 2 And then he found a tent and went to sleep in it.
   " 3 And then he slept in it and his tent fell down.
   " 4 And then he was going bird shooting.
   " 5 But then he climbed a tree.
   " 6 And then he ran away.
   " 7 And then he found a safe place.
   " 8 There were footprints all over the world.
   " 9 Then he took his shirt off to go into the swimming pool.
   " 10 And then a bunny took it.
   " 11 And then he took his shirt off but he couldn't find it because the bunny ate it.
   " 12 And then he found some new clothes.
   " 13 Then he came to someone's house.
   " 14 And then someone was introducing him.
   " 15 And he was going to do that on the piano.
   " 16 And then these two guys saw and the piano chair fell down.
   " 17 And then he was running away and they were going to go after him.
   " 18 And then he found a trailer.
   " 19 And then the pig lifted it up.

Nursery School 8 Female

Picture 1 They're going camping.
   " 2 He's fixing his tent.
   " 3 And it's windy.
   " 4 The tent blew up.
   " 5 He's climbing up a tree.
   " 6 He's going over a choo-choo train.
   " 7 He's on the choo-choo train.
   " 8 He's off the choo-choo train.
   " 9 He's getting off his shirt to go swimming.
   " 10 He's (the dog) is running to the grass.
   " 11 The pig's out of the water.
(Nursery School 8 Female, cont'd)

Picture 12 The pig's dressed.
" 13 The pig went to see his other men.
" 14 The table was knocked over and he's holding the curtain.
" 15 The curtain's by itself.
" 16 He knocked over the bench thing and he's playing the wrong music.
" 17 He's running.
" 18 He's going over to a girl who is in the wagon.
" 19 They're dancing. That all - the end.

Nursery School 9 Female

Picture 1 He was going fishing.
" 2 Then he got his tent up.
" 3 Then he went in his tent.
" 4 Then his tent went up and he was scared.
" 5 He climbed up a tree.
" 6 And then he fell off a tree.
" 7 Then he fell on a train.
" 8 Then he got muddy.
" 9 Then he took off his clothes.
" 10 And went swimming.
" 11 Then the rabbit took his clothes.
" 12 Then he dressed up in something else.
" 13 Then he meet a guy.
" 14 Then he went into an office door.
" 15 Then he played the piano.
" 16 Then he runned out.
" 17 And then he runned away.
" 18 Then he runned there to pick some apples.
" 19 Then they were throw ing the apples up.

Nursery School 10 Female

Picture 1 Piglet wanted to take a walk out in the forest.
" 2 He wanted to go camping.
" 3 Oh - night time there was a storm.
" 4 He saw a green bird.
" 5 So he was so surprised he almost climbed the whole tree.
" 6 He fell out of the tree.
" 7 He thought he was going to fall out of the train.
" 8 He's all black from the coal. He fell out of the train. He did not know what train to take.
" 9 He took his shirt off and went swimming.
(Nursery School 10 Female, cont'd)

Picture 10 He saw a dog take his clothes so he was naked.
   " He didn't find his clothes and so he thought
   " he was a person and got scared.
   " He took the clothes off the scarecrow and he
   " didn't know it was one.
   " They are all dressed in black. He did not
   " know but he was all dressed in black.
   " So they went to a graduation.
   " One of them played the piano.
   " One of them fell down because he was mad.
   " He ran because he saw the cops.
   " The pig ran up the tree so the black one
   " couldn't catch him.
   " The one dressed in black couldn't catch him
   until he came down.

Picture 11 This little pig went camping.
   " He put up his tent.
   " And then it started to make a storm.
   " And it blew away the tent.
   " It climbed a tree.
   " He jumped on a train.
   " The train went fast.
   " The pig jumped off.
   " He took off his shirt.
   " And he jumped in the lake.
   " And he was looking for his clothes.
   " He found them.
   " And walked home.
   " He said it was a long way home.
   " He played the piano.
   " He ran and the chair tripped over.
   " He ran out of the building.
   " He saw his family picking apples.
   " And they had a cookout.

Picture 12 He's taking a stick and making a tent.
   " He's going to sleep.
   " The wind is blowing.
   " The whole thing blewed away.
   " He climbing up a tree.
   " He felled off the train.
   " He got back on the train.
   " He got off the train.
   " A spider and he's trying to take off his shirt.
Picture 10  He's sinking.
"  11  He was a scarecrow.
"  12  Pretending he was a scarecrow.
"  13  They stopped him.
"  14  He's going to play the piano.
"  15  He's playing the piano.
"  16  He fell off the piano.
"  17  He running because they're going after him.
"  18  He ran and he shouted.
"  19  He's in the yard playing.  The end.

Nursery School  13 Female

Picture 1  A pig went for a walk.
"  2  He found a place so he could camp.
"  3  A rain storm came along.
"  4  And blew his tent away.
"  5  His tent landed on a tree branch.  He climbed the tree to get his tent.
"  6  The tree branch broke and a train was going by.
"  7  He fell into the train.
"  8  He saw part of the train going by.
"  9  He wanted to find his tent.  He decided to swim across the pond.
" 10  As he was swimming a dog came along and took his clothes.
" 11  He was a man running.
" 12  He took those clothes.
" 13  Some other pigs took him - he was the man who played the organ.
" 14  He had to do what they said so he did.
" 15  He started to play the organ.
" 16  The real organ man ran in.
" 17  The pig ran out.
" 18  He saw his family.  They were picking apples to make an apple pie.
" 19  He helped them pick apples.

Nursery School  14 Female

Picture 1  A man's hunting.
"  2  A pig and a tent.
"  3  A tent falling down on the pig.
"  4  A tree with the pig's pillow.
"  5  A pig climbing up a tree.
"  6  A train with some bunny rabbits and a pig.
"  7  A pig on a train.
"  8  A pig in a train.
"  9  A pig in some water.
(Nursery School 14 Female, cont'd)

Picture 10 A pig and a dog.
" " 11 A bear in a bridge.
" " 12 A pig with a bridge again and some water.
" " 13 Three pigs and a building.
" " 14 A building and some pigs.
" " 15 A building and some people. The people who are singing.
" " 16 Some pigs and a door.
" " 17 A car and some pigs.
" " 18 A car and a pig.
" " 19 Three pigs, a car and a ladder.

Nursery School 15 Female

Picture 1  The little pig went hiking.
" " 2 Then he went camping.
" " 3 Then the wind and rain come.
" " 4 Then it blew his tent away.
" " 5 Then he climbed a tree to get his tent.
" " 6 Then he falled off and jumped off and tried to get his tent.
" " 7 Then he couldn't jump over the train and he got on it.
" " 8 Then he saw the train go by.
" " 9 Then he took his shirt off.
" " 10 Then a dog came along and grabbed his clothes away.
" " 11 And he (dog) runned away.
" " 12 Then he took the clothes off the scarecrow.
" " 13 Then he meet some customers - 2 pigs.
" " 14 Then he got up on the stage.
" " 15 Then this pig went up on the stage.
" " 16 Then he went out and the pig heard the other pig play the piano.
" " 17 And then he runned.
" " 18 And he saw some pig friends and bunnies picking apples.
" " 19 And he helped out.

Nursery School 16 Female

Picture 1  A little pig went in the woods to camp.
" " 2 He set up his tent.
" " 3 He heard noises in the night.
" " 4 He got scared.
" " 5 He climbed up a tree.
" " 6 He - somebody pushed him off the tree. He landed in the train.
" " 7 He landed in coal.
Picture 8  He went to a pond.
"  9  He took his clothes off.
" 10 A dog ran away with his clothes.
" 11 He was bare - he saw a scarecrow.
" 12 He looked nice.
" 13 And a man let him in.
" 14 An audience don't know who he is.
" 15 He played a piano.
" 16 And the men threw him out.
" 17 He ran.
" 18 He met his other pig friends.
" 19 They picked apples - I guess that's the end.

Picture 1  Piggy walked along.
"  2  And he made up a tent.
"  3  And he slept in it.
"  4  And there was some hard wind blowing away the tent.
"  5  And then he climbed a tree to get the tent.
"  6  And he went over the train and broke the limb of the tree.
"  7  And then he got on the train right where the rocks were.
"  8  And then he looked at the water and wanted to swim.
"  9  And he took off his shirt.
" 10  And then he went in the water.
" 11  Then he came out and look over where fence is
" 12  Now he dressed up like a man and he took off his hat.
" 13  And then he came to see the other men.
" 14  And that man showed everyone this man.
" 15  He was playing that.
" 16  Then all the other men yelled at him and he ran.
" 17  Then he ran out of that house.
" 18  Then he saw some apples trees with some 3 piggies trying to pick them.
" 19  Then he was a boy scout.
Nursery School  18 Female

Picture 1  A pig going camping.
"  2  He setted up his tent.
"  3  And then it was a windy day.
"  4  It's still a windy day.
"  5  He's climbing a tree.
"  6  And then he fell off it and fell into a train.
"  7  And then the train started to go and he took a ride on it.
"  8  Then after he got off the train and then he took the dog.
"  9  And then he started to go swimming.
" 10  Then after a dog ran away with his clothes.
" 11  And then after he got out and started to walk - he went home.
" 12  And put some other clothes on.
" 13  And then after he went over and met some gentlemen and said, "What are you doing here?"
" 14  And then he went in the house and saw all the people who were on the train.
" 15  Then the man said, "What are you doing?"
" 16  And then a pig ran in and knocked the man who was playing the piano.
" 17  And then he ran, ran away.
" 18  And then he ran home and saw 2 pigs - one was picking apples and one was in a wagon.
" 19  And then they all went down and put the apples in a basket and then they all played.

First Grade  1 Female

Picture 1  He's going camping.
"  2  I don't think he can eat - he don't got no sticks and he don't - I don't think he got no matches.
"  3  I don't know what's happened there.
"  4  Oh, no. He's going to get all wet.
"  5  He's trying to get his tent and he's climbing up a tree.
"  6  Jumped over a tree and got landed on a train.
"  7  I think that's funny - I think that's so funny. Once he was jumping over to grab his tent he landed in a train.
"  8  Here he wants to take a bath and wash up.
"  9  He's going to come and take off all his clothes.
" 10  And now a doggie - and now he don't have no clothes to wear.
" 11  He's got to go someplace too.
" 12  I wonder where he got those clothes. Maybe he went back home and got them.
(First Grade 1 Female, cont'd)

Picture 13 They might be laughing at him. Maybe they're laughing at him.
" 14 He must be all wet.
" 15 He's thinking.
" 16 Oh, there goes - he falls.
" 17 He runs away and then like the people want him to come back.
" 18 I don't know what he wants there.
" 19 He wants an apple there.

First Grade 2 Female

Picture 1 There was a pig who went camping.
" 2 And he - when he got finished putting up the tent and everything he -
" 3 He saw the leaves coming down on the tent.
" 4 And then it started to rain and everything blew away even his tent.
" 5 He climbed up the tree to get his tent.
" 6 He fell off the tree and he fell into the train.
" 7 And he got all muddy.
" 8 Then he got off the train and he saw a pond.
" 9 He took off his clothes and he put and he went in the pond.
" 10 A dog took away his clothes.
" 11 When the pig got out he didn't have nothing to wear.
" 12 He found these (his) clothes from a scarecrow and he put them on.
" 13 And these guys started talking to him.
" 14 Then they had a show.
" 15 And some guy played the piano and some guy introduced the pig.
" 16 And the pig was up - got up on the stage.
" 17 And then he went out the door and ran away.
" 18 Then he went to his house.
" 19 And he was - he had a basket of fruit - That's it.

First Grade 3 Female

Picture 1 Once upon a time there was this little pig and he wanted to go camping.
" 2 And then he set up a tent and then he wanted to go fishing so he went fishing.
" 3 And then it started to rain and he was getting scared.
(First Grade 3 Female, cont'd)

Picture 4  But then it started to get windy and his tent blew away.
"  5 And then he got scared and so he tried to climb a tree.
"  6 And then he fell off the tree and into this train.
"  7 And then he got all muddy.
"  8 And then he saw this lake and he wanted to go swimming and to make him a little cleaner.
"  9 And so he had his bathing suit and he went swimming.
" 10 And then he was drowning and he wanted someone to help him but the person took his stuff away.
" 11 And then he saw a scarecrow and had its clothes.
" 12 Then he took the clothes off and put them on himself.
" 13 Then some people saw him and thought he was someone else so they could sing.
" 14 And then he went to this stage and he was on television.
" 15 And then everyone watched him and he didn't know what he was going to do.
" 16 And then he blew off because some people opened the door and it was windy and he blew away.
" 17 And then he ran home and he never wanted to come back there again.
" 18 And then he was happy to see his family.
" 19 And he got to have whatever he wanted.

First Grade 4 Female

Picture 1  The pig was going for a hike.
"  2 And then he set up his things.
"  3 And then it started to rain. And the wind blew.
"  4 And he climbed up a tree.
"  5 And he fell off the - the tree broke and he fell.
"  6 And he landed on the train.
"  7 And the train was leaving and he was all dirty.
"  8 And so he -
"  9 And he was in the pool.
" 10 And the dog took his clothes away.
" 11 And then he had no - he had no clothes. And he looked at that them.
" 12 And he got dressed up in them. And he had some clothes.
" 13 And he went to town.
" 14 And then he was on stage.
(First Grade 4 Female, cont'd)

Picture 15 And the other pig introduced him. And then he played.
  " 16 And then the man did not think he was doing that well.
  " 17 And so he ran away.
  " 18 And then he ran and ran until he saw his other family.
  " 19 And then they started picking apples and then he gave them to his mother and then his mother cooked.

First Grade 5 Male

Picture 1 He went for a trip somewhere.
  " 2 He set up a tent and all that when he went for the trip.
  " 3 And the big wind blew - started to blow.
  " 4 And it blew the tent all up and he went backwards.
  " 5 It blew him onto the tree and the tent fell back onto the tree.
  " 6 Then the wind blew him off it, the tree and then the tent went off and blew the train under him.
  " 7 And he fell on the coal on the train.
  " 8 And he got out of the train and he was all black with soot on him.
  " 9 He wanted to go into the pond to get washed off.
  " 10 The dog took his clothes.
  " 11 Then he got out of the pond and saw a scarecrow with some clothes.
  " 12 Then he went to get them and he put them on.
  " 13 Then he went into town and people thought he was a mayor.
  " 14 He went on stage in front of all these people watching.
  " 15 He played the piano.
  " 16 He fell over on the piano seat.
  " 17 He started to run home.
  " 18 And he found his wife and his kids.
  " 19 And they lived happily ever after.
First Grade 6 Female

Picture 1  He's going camping and he's walking with a stick and he has a sleeping bag and backpack.
"  2 He setted up the tent and he put the stick down and he got out his pan.
"  3 He's in the tent and the wind is blowing hard and his head is out.
"  4 And the wind blew away and stopped and the rain came down.
"  5 And he's climbing the tree to get his stuff and it's still raining, you know it's still blowing.
"  6 Uh-Oh - he almost got to it but the tree broke and he flew over the train and his tent - um - he didn't get his tent.
"  7 And he jumped on the train and the train was going.
"  8 And he jumped off and there was a mouse and a cow and a chipmunk and a chicken in the train. Then he jumped off the train was still going.
"  9 And he decided to take off his clothes and go swimming.
" 10 And then when he was in the middle of it the dog took his clothes. He was screaming and yelling.
" 11 And when he got out of the water he was all wet and in his underwear and he saw a scarecrow.
" 12 And he took the clothes off of the scarecrow and put them on and all there was left was two sticks.
" 13 And when he turned the corner on the street, two other pigs joined him in a club, whatever - a building.
" 14 He came on the stage and he was sweating and the man moved the curtain so that he - they could get by and all the animals are out there sitting on the chairs.
" 15 And the man was introducing the pig while all the animals are sitting out there.
" 16 He tips over and all the crowd says - Oh.
" 17 And then he runs out of the club and he runs and runs really fast.
" 18 And then he gets to his family and his family is picking apples.
" 19 And everyone was glad he was home - even his whole family.
First Grade 7 Male

Picture 1  The little piggy's going fishing.
"  2  The little piggy's going camping.
"  3  It started to rain.
"  4  His tent got caught.
"  5  He's climbing a tree to get his tent down.
"  6  He's - the rabbit pushed him.
"  7  And then he landed on the rocks and got all dirty.
"  8  He's trying to find some place to get washed off.
"  9  He's getting ready to get washed.
" 10  The rabbit took his clothes.
" 11  He's trying to figure out where he's going to get some clothes.
" 12  He's in the clothes.
" 13  He's all dressed up so he could go with the other pigs.
" 14  And the other pigs were here.
" 15  Then the man was watching him. He was on the stage.
" 16  He jumped of the table.
" 17  He ran.
" 18  They're getting ready to take off.
" 19  Then they're getting home.

First Grade 8 Female

Picture 1  The pig's going camping in the forest.
"  2  He made his tent - he's making his tent.
"  3  The rain - it is raining.
"  4  The rain blew all the things away.
"  5  He is climbing a tree to get the tent.
"  6  He - falls - falls off the train - into - on a train.
"  7  He gets all covered with black coal.
"  8  He is all dirty.
"  9  He is going to wash himself up.
" 10  A dog snatches his clothes and runs away.
" 11  He sees a scarecrow.
" 12  He puts the clothes on.
" 13  And he goes to and he walks back to town and the people greet him at the stage door.
" 14  He's going to play the piano.
" 15  He doesn't know what to play.
" 16  He falls down on the seat - off the seat.
" 17  He is running back to his house.
" 18  This is his home.
" 19  His mother is fixing him some food.
First Grade 9 Female

Picture 1 There was a pig.
  2 Who wanted to have a tent.
  3 It started to rain.
  4 His tent flew off in the wind.
  5 The tree had the tent.
  6 The pig fell.
  7 The pig fell in the train.
  8 The train took the tent.
  9 He went swimming.
 10 The dog took his clothes.
 11 The pig had no clothes.
 12 He got the scarecrow's clothes.
 13 He stopped.
 14 The pig brang him up into the stage.
 15 He's going to play the piano.
 16 He fell down.
 17 He ran off to the people.
 18 He found his home.
 19 And danced with the pigs.

First Grade 10 Male

Picture 1 The three little pigs.
  2 The pig went in the water.
  3 The pig saw some bees.
  4 -
  5 The pig tried to get his towel.
  6 The pig does fell off the tree.
  7 The little black pig.
  8 The pig that had to take a bath.
  9 The pig that saw a dog.
 10 The dog that took away his clothes.
 11 The pig that saw a scarecrow.
 12 The pig that took off the clothes.
 13 The pig that saw two guys miss him.
 14 -
 15 The pig that played piano.
 16 The pig that ran away from the piano.
 17 The pig that ran away.
 18 The four pigs that were in the trailer.
 19 The six pigs that lived together.
First Grade 11 Female

Picture 1
The little pig wants to go camping.
" 2 He went to camp, set up his tent.
" 3 And it was a windy night. He got scared.
" 4 And all his tent, the stick, the food blew away.
" 5 And he climbed up the tree to get his tent.
" 6 He had gone on a train and fell off.
" 7 He got back on the train again.
" 8 He got off the train.
" 9 He thought he'd take a little swim. So he took his clothes off.
"10 And when he was in the water a dog came by and took his clothes.
"11 And he only had his underwear on. And he looked at a scarecrow and took the clothes off the scarecrow.
"12 Then he got dressed in them.
"13 And he went to this place - the stage door.
"14 And they thought he was going to play the piano.
"15 Now he's sitting down and he's playing the organ.
"16 And he fell off the chair and the other guy is looking at him.
"17 And then he ran out of there.
"18 Then he saw his family.
"19 And they are fixing stuff. The mother is making stew. The little pigs are dancing. One is picking apples and father pig is putting them in basket.

First Grade 12 Female

Picture 1
Once upon a time there was a pig. And he was going camping. First, let me see what I'm supposed to bring. Oh yes, I'm supposed to bring a pan and I'm supposed to bring a tent and my backpack.
" 2 Now he set out and he found a camping spot. First he put up the tent and then he was starting to make a fire.
" 3 Oh no! It was starting to rain. He left his fire and went in his tent.
" 4 But then a big wind came and blew all his stuff away.
" 5 He had to climb up a tree to get his tent back.
" 6 Uh oh! The pig fell in a train.
" 7 But he helded on.
(First Grade 12 Female, cont'd)

Picture 8  He saw a pond. He said, "Oh! I think I'll go swimming."
  "  9  So he took off his clothes and jumped in.
  "  10  But, a dog took his clothes. "No don't you -
        get away from here you bring me back my
        clothes."
  "  11  Then he saw a scarecrow. He said, "Well,
        I could use those clothes."
  "  12  Then he put on the clothes and took off his
        hat and said, "Howdy!"
  "  13  Then some men came out in black suits. And
        they said, "We need you, they want you!
        You better hurry up!"
  "  14  So they held his hands and he ran.
  "  15  He was supposed to play the piano. So he sat
        down and bowed. Then he started to play.
  "  16  He tipped over and he wanted to run away from
        there. He didn't like this. He didn't know
        how to, he didn't know how to play the piano.
  "  17  Everybody shouted, "There he is, he's running
        down the street. There he is!" But he ran as
        fast as he could.
  "  18  Then he ran home to his family. Everybody
        shouted, "Hurray! Hurray! Daddy's back!"
  "  19  Then everybody shouted and jumped up and
        down. Then Mama started their dinner.
        The End.

Second Grade  1 Female

Picture 1  This little pig is going for a walk.
  "  2  He went camping.
  "  3  It started to rain.
  "  4  Then his stuff blew away.
  "  5  Then he climbed up a tree.
  "  6  Then he fell off a tree and a train was
        coming.
  "  7  He got stuck in the coal pile.
  "  8  He was all dirty.
  "  9  Then he went swimming.
  " 10  Then the dog took his clothes.
  " 11  Then he had nothing to wear except his little
        bathing suit.
  " 12  Then he found some clothes off the scarecrow.
  " 13  Then he took a walk and found two pigs just
        the same as him.
  " 14  Then one of the pigs thought he was one of them
        and he started to play the piano.
  " 15  Then the pig introduced him.
(Second Grade 1 Female, cont'd)

Picture 16  Then one of the pigs did the wrong note.
"  17  And he got kicked out.
"  18  And he ran home.
"  19  And he had fun.

Second Grade 2

Picture 1  A pig went for a hike.
"  2  Night began to fall and he set up his tent.
"  3  Then he went into his tent and went to bed.
"  4  Then a big wind came along and blew away his tent.
"  5  And he got stuck in a tree. He was there until morning.
"  6  And then morning came and he fell on a train and it had coal on it.
"  7  He got all dirty.
"  8  He went to a pond and thought he could get a bath in the pond.
"  9  He jumped in the pond.
" 10  A dog took his clothes.
" 11  He saw a scarecrow.
" 12  He took the scarecrow's clothes.
" 13  He went downtown to go home and then two men come out and thought he was the magician.
" 14  He went on stage and played the piano.
" 15  And then he messed up.
" 16  And the real magician came and scared him off.
" 17  He ran down the street to his house.
" 18  He found his children and his wife.
" 19  And then he played with his children and they ate supper.

Second Grade 3

Picture 1  About the pig. He was going on a camping trip.
"  2  And then he set up his tent.
"  3  And then it started to rain and he got in.
"  4  And then his tent blew away.
"  5  He climbed up the tree and tried to get his tent.
"  6  Then he fell out of the tree and his tent was blown.
"  7  He fell in the dirt in the train and he got all dirty.
"  8  He saw a lake and went in it.
"  9  He tooken off his clothes to go in the lake.
" 10  The dog ran away with his clothes.
Second Grade 3

Picture 11  Then he saw a scarecrow and he took his clothes.
"  12  He had the scarecrow's clothes on.
"  13  Then he saw some other pigs dressed up like him.
"  14  Then he went to a party.
"  15  Then he went and played the piano.
"  16  Then he fell out of his chair.
"  17  Then he ran out the door.
"  18  He saw his home.
"  19  He's playing with his brothers and sisters.

Second Grade 4 Male

Picture 1  The pig was walking through the woods.
"  2  He set up his tent.
"  3  It was a hurricane.
"  4  It blew the tent away.
"  5  The pig climbed up the tree.
"  6  The pig fell off and fell into the coal car.
"  7  The pig was black.
"  8  The pig saw a river. He was gonna take his clothes off and go in there.
"  9  He took his clothes off.
" 10  A dog ran away with his clothes.
" 11  He was cold and wet.
" 12  He bought a new suit.
" 13  He was walking down the path. The other pigs saw him and thought he was their piano player.
" 14  The pig dragged the pig into the ballroom.
" 15  The pig played the piano.
" 16  They scared him off.
" 17  He was running down the path.
" 18  He saw his family.
" 19  He helped with the chores and he picked apples and the little, his little son picked apples and the other little pigs were jumping with apples and the mother was making supper.

Second Grade 5 Male

Picture 1  A gentleman pig was going out.
"  2  And the pig he set up his tent.
"  3  And at night fall he went to bed in it and a big wind came up.
"  4  And then his tent blew off and got caught in a tree.
"  5  Then the next day, the little pig, he got up in a tree and he tried to get his tent.
(Second Grade 5 Male, cont'd)

Picture 6  Oh God - Then a train came through and he broke
the limb.
    " 7  And then he got a ride on a train - That looks
more like a truck.
    " 8  Then he is ready to take a bath.
    " 9  Then he started to take off his shirt but
he did not see a - dog. Let's say a dog.
    " 10  Then when he was taking a bath the dog ran
off with his clothes - Ow.
    " 11  Then he saw a scarecrow. I never even saw that
part - so what do you think about that -
he's going to go over there and take the
clothes off of the scarecrow.
    " 12  Then he walks away looking very happy.
    " 13  And then two men see him and catch him and
they think he's the piano player.
    " 14  And they get him to play the piano - almost.
    " 15  Then he's trying to play and he gets introduced
by the boss of it - is he the boss.
    " 16  He falls down and then the guy who's suppose
to play, he finally comes in. Looks like
he's mad.
    " 17  And then he got chased off.
    " 18  And then he went to a place right where a
little wagon stand with a whole bunch of
little rabbits.
    " 19  Then he started to help them and they helped
him.

Second Grade 6 Female

Picture 1  He was gonna - like he was going to go camping.
    " 2  He set up his tent.
    " 3  He went to bed and it started to rain.
    " 4  And a storm took his tent away.
    " 5  He climbed up in a tree.
    " 6  And he jumped on a train and he got in it.
    " 7  Then he was riding on it.
    " 8  Then he jumped off and he was going over there
to take a swim.
    " 9  Then he took off his shirt and he went in
swimming.
    "10  Then a dog took off with his shirt.
    "11  He got out and he was in his underwear. He
had to find some clothes.
    "12  He took the scarecrow's clothes and he was
wearing them.
    "13  Then he met some other pigs and they had on
better clothes.
(Second Grade 6 Female, cont'd)

Picture 14 And they went to an orchestra. I guess. He was gonna play.
" 15 Then he started to play and everyone was clapping. I guess.
" 16 And then he got - oh no - he fell off the chair and he got thrown out.
" 17 He ran home.
" 18 And then afterwards some other pigs - his children and his wife.
" 19 And they lived happily ever after.

Second Grade 7 Female

Picture 1 Once upon a time there was a pig who went on a trip.
" 2 He brang his tent and found a place for him to sit and to build his tent.
" 3 It started raining hard. His tent couldn't stay there long enough anymore.
" 4 Everything blew away and the tent got caught in a tree.
" 5 The pig had to climb up the tree to get the tent.
" 6 And after the tree branch broke and the pig fell into a train.
" 7 He fell into the coal and he sneezed.
" 8 Then he came out of the train and he didn't know where he was.
" 9 He went to the beach and took a bath.
" 10 Then a dog took his clothes.
" 11 And then a hook was on the bridge and he went on the bridge and got the clothes that were on the bridge.
" 12 And then he went to his family.
" 13 First he got caught by two people that were from his town and told him to go play a piano.
" 14 And they pushed him into there.
" 15 And he got on the chair.
" 16 And then he fell off the chair.
" 17 And he ran back to his -
" 18 Where his mother and father and brothers were waiting for him. They all shouted for him.
" 19 Hurray - they shouted. They all had supper together. The end.
Second Grade 8 Male

Picture 1  Once upon a time there was a pig who went camping.
" 2 Then he made his tent.
" 3 Then he set the pole up.
" 4 Then his tent went flying and all his other stuff up in the air.
" 5 The tent went up on the tree and the pig tried to get it.
" 6 The pig slipped - I mean - the branch broke and down went the pig.
" 7 He landed in a box-car filled with coal.
" 8 So he was all black.
" 9 So he was gonna take a bath.
" 10 And a dog came and went off with all his clothes.
" 11 So he walked away and he saw a scarecrow's clothes on a stick.
" 12 He took them off the stick and put them on him.
" 13 And he walked into town.
" 14 And there was a big crowd and he went outside.
" 15 And he was gonna play the piano.
" 16 But he ran out.
" 17 And he kept on running down the road.
" 18 Until he met a wagon fill of pigs.
" 19 And he stayed there and had a good time.

Second Grade 9 Male

Picture 1  A little pig went for a walk.
" 2 And he found a tent and he built it.
" 3 Then he - it was a raining day and he got out and looked.
" 4 And his tent blew away up in a tree.
" 5 And then he climbed after it.
" 6 And he flew down after it - fell down.
" 7 He landed in soil.
" 8 He went to town and rode that bus - actually the river.
" 9 Took off his clothes and shirt.
" 10 And went for a swim and then the dog came and took his clothes.
" 11 And he got out and in his bathing suit or underwear. And looked at a scarecrow.
" 12 And took the scarecrow's clothes.
" 13 Went in the - the stage door.
" 14 Then he had to perform and an audience.
" 15 Then he had to play the piano.
(Second Grade 9 Male, cont'd)

Picture 16

Then he fell down and the judge came running out. And then the audience looked surprised.
" 17 And then he ran out of the stage door.
" 18 And then he saw a wagon. And ran to them.
" 19 And then they had fun together and the old woman was cooking lunch over a fire.

Second Grade 10 Male

Picture 1

There was a pig who was taking a walk.
" 2 He walked and made a tent and he went in it.
" 3 After that it started to rain.
" 4 Then it blew the tent over.
" 5 So he climbed up to the tree and tried to get the tent.
" 6 Then he fell off and almost went and he hit a train - went into a train.
" 7 Then he went on the coal and he sat down.
" 8 Then he saw - he got off and saw some water.
" 9 He took off his shirt, took off his pants and got into his shorts and went in and he went swimming.
" 10 After that a dog came along with something in his mouth.
" 11 Then he got out and a person came - was coming.
" 12 Then he walked - he was a closer and he was talking to the other.
" 13 Then he got dressed and he went to the court. I guess.
" 14 Then one of the pigs was playing the piano.
" 15 Then two pigs went back to the curtains waiting for their turn.
" 16 Then one of the pigs yelled and he tipped over.
" 17 Then after that he ran home.
" 18 After that he was helping people pick apples.
" 19 Then he was picking apples and he put them in a basket.

Second Grade 11 Female

Picture 1

The pig went camping.
" 2 The pig was fixing his tent.
" 3 The pig was gonna go to sleep.
" 4 The tent blew away cause it was raining.
" 5 He was trying to get the tent so he climbed up a tree.
" 6 And now he's gonna land on a train.
" 7 The train went.
(Second Grade 11 Female, cont'd)

Picture 8
The pig missed his train.
"9 He was gonna go swimming.
"10 And then the cat runs off with his shirt.
"11 Then he comes out.
"12 Then he's gonna try to find a hat. Then he walks.
"13 Then he meets some people.
"14 Now he's embarrassed of all the people and he has to play a piano.
"15 He's playing the piano.
"16 And he fell out of the chair so he's running to get him.
"17 He's running.
"18 And now that's the daddy of these.
"19 They're throwing apples up in the air and he's trying to catch and he's climbing up the tree to get them.

Second Grade 12 Male

Picture 1
There was once a pig that went camping.
"2 He camped out and he put a tent up.
"3 Then a big wind came.
"4 And then it blew the tent away.
"5 He started to climb up a tree to get his tent.
"6 He jumped on - A train came by and he jumped onto it.
"7 The train was going fast.
"8 He got off and then the train went away.
"9 He went skinny dipping.
"10 A dog took his clothes away. He was bare now.
"11 He could not find anything to wear but then he saw a scarecrow.
"12 He took the suit off the scarecrow and then he put it on.
"13 He went to a store and there was two other pigs.
"14 And he went on stage and there was audience and he was gonna play the piano.
"15 He played the piano.
"16 And he got messed up and they threw him out.
"17 He ran away.
"18 He saw three little pigs in a cart.
"19 And then he went to a house and had fun.
Second Grade 13 Female

Picture 1 Once upon a time there was a pig walking along the road.
" 2 Then it was getting dark and he had tent and stuff to help him.
" 3 Then he got in his tent and it started rain.
" 4 And then the wind blow all the stuff away.
" 5 The pig climbed up on the tree to get the tent.
" 6 And then he fell off and there was a train.
" 7 He fell right in the dirt.
" 8 And then he was dirty from the dirt.
" 9 And then he thought he would take a swim and he got his bathing suit on.
" 10 And then a dog came and took all his clothes.
" 11 And then he had his bathing suit on.
" 12 And then he saw a garden and he saw a scarecrow and he took the suit from the scarecrow and put it on.
" 13 And then he walked in town and he met some people.
" 14 And then the people brought him to the studio - for him to think.
" 15 But he was gonna - he was playing the piano and he got tired.
" 16 And then he fell over.
" 17 And then he ran out of the studio.
" 18 And then he came to apple pickers.
" 19 Family had fun.

College 1 Female

Picture 1 Mr. Piggy went out on a camping trip one day, out into the country.
" 2 When he got to his site he pitched his tent.
" 3 And then a rainstorm came. Mr. Piggy was afraid his tent would blow away.
" 4 And it did. He didn't know what he was going to do now.
" 5 So he climbed up the tree to get the tent holding on very carefully so as not to fall off.
" 6 But little did he know that on the other side of the tree was a cliff and a railroad track. And Mr. Piggy fell off and he fell into the coal train.
" 7 Mr. Piggy got all dirty. Now he didn't know where he was heading because he didn't know this part of the country.
(College 1 Female, cont'd)

Picture 8  He got off the train at a little pond.
" 9  He was all dirty so he decided to go swimming and get all of the coal off. And he did so.
" 10  But much to his surprise a dog took his clothes. What was Mr. Piggy going to do now?
" 11  He got out of the pond and he saw a scarecrow, and he thought if a dog can take my clothes, I can take the scarecrow's. He doesn't need them as much as I do.
" 12  So Mr. Piggy took his clothes and he went off.
" 13  As he walked through town, two men saw him all dressed up in the scarecrow's clothes and asked him to come inside and perform.
" 14  Well Mr. Piggy had never performed before and he didn't know what he was going to do.
" 15  They made him sit down and play the piano.
" 16  But everybody realized that Mr. Piggy didn't know how to play the piano.
" 17  Scared to death he ran out of the building.
" 18  He kept running until he came home to where his family was waiting to see him. He was so happy to see them.
" 19  They all played around and Mr. Piggy played with his little children. And they all lived happily everafter.

College 2 Female

Picture 1  Once upon a time there was a little pig and he decided to run away from home.
" 2  And he was out in the countries, pitched up a tent.
" 3  And at night he was sleeping and it started raining and it was a pretty bad storm.
" 4  And the tent blew away.
" 5  And it caught onto the end of a branch that he started climbing up the tree.
" 6  And he went out too far on the limb and he fell off.
" 7  And he fell into a coal bin on a train.
" 8  And - then he got off. I guess the train stopped and he climbed out.
" 9  And he went to a pond to wash off.
" 10  And meanwhile a dog ran away with his clothes.
" 11  And so he saw a scarecrow standing there with clothes on.
" 12  So he stole those clothes. Pretty nice suit I guess, with a tophat.
(College 2 Female, cont'd)

Picture 13  And he was walking in the village, in the town, whatever. And he was walking by some studio, by the stage door. And these guys saw him and they thought he was the pianist that was suppose to play that night.

"  14 So they dragged him in there.
"  15 And they put him on stage in front of everybody and told him to start playing. He didn't know what the music was cause he never played.
"  16 And the real guy came in anyway and he threw him out of there.
"  17 And he ran out.
"  18 And he ran back to his house and saw his family there picking apples.
"  19 And then he joined in the fun and lived happily ever after.

College 3 Male

Picture 1  This little piggy's walking down the road.
"  2 And he sets up a tent and he's going camping.
"  3 And a storm comes along and he - it's pretty rough.
"  4 And blows the tent away - goes to climb after the tent.
"  5 The tent gets stuck up in some tree. Climbs the tree.
"  6 Falls off the tree, the tent goes flying. He falls onto the railroad car.
"  7 Tent takes off, he's on the train. The train keeps going.
"  8 Anyway he ends up in some strange place.
"  9 Decides to take his clothes off and go for a swim.
" 10 This dog spots him from the other side of the lake. Jumps in. The dog comes over takes his clothes. Runs off with them - now he doesn't have any clothes.
" 11 Looks over and sees a scarecrow in the next field.
" 12 Jumps over, gets the clothes off. Puts the clothes on. Happens to be a tux, and a tophat and the whole bit.
" 13 Walks into town and he must walk into some kind of a theater party. And two other pigs dressed up in tuxedos just like his, spot him. Must take him for a I guess a pianist or a French? or something.
(College 3 Male, cont'd)

Picture 14  Take him put him on stage in this big concert hall and all the people waiting to hear him.
"  15  Sits down at the piano, doesn't know what the heck he's doing.
"  16  Must start to play and completely mess up the whole thing.
"  17  And as he runs away, he runs down this old road.
"  18  And he runs into a bunch of gypsy's.
"  19  And they take him in and they clothe him, and he's happy as heck.

College 4 Female

Picture 1  Mr. Humphrey pig goes for a walk. He's walking along in the countryside. He's hiking, he's just a vagabond.
"  2  And it get dark and he decides to set up a tent and sleep for the night in a very nice area of the woods.
"  3  And then he's sleeping and all of sudden a big storm comes. And it's raining and blowing real hard.
"  4  And the next minute his tent up and flys away from him and everything goes all over the place. And the tent itself gets caught up in a tree.
"  5  And so Humphrey decides to go up into the tree to get his tent. And he's climbing up the tree.
"  6  And the next minute the tree limb snaps!
"  7  And he falls onto a train and right into the coal and he gets all dirty. And he gets all dirty and he's all black. And the train keeps moving and he doesn't know where he's going.
"  8  And then it stops and he gets off at a stop called Halston, a little town called Halston. And right near the town is a pond.
"  9  And so he decides to get all cleaned up and go for a swim in the pond.
" 10  And while he's swimming a little dog comes and takes all his clothes away.
" 11  So he has to find some more clothes and right next door is a field with a scarecrow.
" 12  So he goes and takes the scarecrow's clothes and they're really fancy clothes, they're like evening clothes.
" 13  And so he's got his little suit and he walks into the town. And in the town two other pigs come up to him and in evening clothes like him.
Picture 14  And they say, "Where have you been, we've been waiting for you, hurry up, let's go, everybody's waiting."

"  15 So he's wondering what's going on and he's saying, "What do you mean, what do you mean waiting for me, what are you waiting for?" And so they drag him and they drag him to a stage. And he looks out and he sees all these people and he's really scared. He doesn't know what's going on. And they say, "Go ahead, go play. They're all waiting for you." So they think he's some pianist. And he's looking at the music and he's going "I don't know what's going on and I can't read music." So they're introducing him and he's setting there not knowing what he's going to do.

"  16 And then all of a sudden the real pianist comes in. And he thinks that Humphrey is stealing his show. So he pushes him out and they kick him out.

"  17 And he runs away before they get all angry at him. And he runs and runs.

"  18 And all of a sudden, he finds his family. And there they are. He's actually a gypsy. He's a gypsy pig and he finds his family picking apples in the orchard.

"  19 And his sons are all dancing and his wife is cooking dinner. And they all live happily ever after.

College  5 Male

Picture 1  Mr. Perry Pig was on his way home to visit his family. He had all his camping gear.

"  2 And night was beginning to fall so he set up his tent and pitched camp.

"  3 And it got to be a little blustery out. He was in his tent and the wind started blowing.

"  4 And soon it got so strong that it blew his tent away onto the end of a tree.

"  5 So in order to rescue his tent he climbed out onto the end of a branch.

"  6 He got so far over he fell off the branch and lo and behold underneath him was a train and he fell into the coal car of a train.

"  7 And he got into a terrible mess. So the train's going along and Perry noticed that they were going by a little pond.

"  8 So he hopped off the train to get himself cleaned up.
And he left his clothes in a pile by the edge of the pond.

And while he was bathing himself a little brown dog came running by and stole all his clothes.

Well that left Perry in quite a predicament. And he was standing there in his red and white underwear. And he noticed a scarecrow.

With an old tuxedo suit on. So he grabbed those.

And he continued on his way. And as he was passing through town, he was passing through an alley by the stage door of the local theater.

He was grabbed by a couple of other pigs and pushed onto a stage and sat down at a piano. Apparently he was mistaken for a maestro that was supposed to perform that afternoon for the local people.

So here he is in front of this piano wondering what to do when all of a sudden the true maestro comes storming in.

And the people ran Perry out of town because they thought he was an imposter, trying to fool them.

So he ran away and soon he found his family.

In the orchard, where they were picking apples. And they all started to rejoice and celebrate the safe homecoming of Perry Pig.

There was this pig that decided he wanted to go on a camping trip. So he got all his stuff together and started off.

And he found the place he wanted to camp and he set up his tent, and got all ready and was going to bed.

And all of a sudden this big wind started to come, with rain and everything.

So all of a sudden the tent blew off the top of him, and started blowing away.

And then the wind got so strong that he started blowing away, too.

And it kept blowing him, and blowing him, and blowing him until he fell into this coal car on a train that was going by, close by.

And then he held on in the coal car until they came to the next stop.
(College 6 Female, cont'd)

Picture 8  
9  And then he got off and he saw this pond. And he decided he would wash himself off. So he took off his clothes.
10  And got in to get all cleaned and this dog came along and stole his clothes.
11  So he got out of the water, chasing the dog and then he saw this scarecrow.
12  And he decided he would take the scarecrow's clothes since he didn't have any. And he put those on and he started walking.
13  And he came to this theater, the back door of this theater and these people were out there and they thought he was the guy that was supposed to be performing.
14  So they brought him in.
15  And they introduced him as the guy that was going to play the piano.
16  And he was just sitting down and the real guy that was supposed to play the piano came in and started chasing him out because he was upset cause they got another person.
17  So he ran away while this guy was chasing him.
18  And ended up home again.
19  Where all his family were in the orchard picking apples. So they just finished picking apples and had dinner and that was the end of the story.

College 7 Male

Picture 1  
2  Mr. Pig decided that he'd take a weekend off from the family and go out and rest and go camping.
3  And he found a nice spot under some trees located on a ridge, he set up his tent and decided to rest for the night.
4  But along, but early in the morning a storm came up.
5  And strong winds and rains lifted his tent up into the trees.
6  Mr. Pig, in decided to retrieve the tent went up into the trees to retrieve, to get the tent back.
7  But as he was climbing up the branches broke and Mr. Pig fell over the ridge into a cartload of coal that was, that was attached to the train that was running underneath, alongside of the ridge.
(College 7 Male, cont'd)

Picture 7  Mr. Pig, stunned, jumped in the car of coal and decided to catch the train.
           " 8 And get off at its first stop.
           " 9 Being very dirty by the coal and when he finally got off the train, he decides to take a swim in the nearby pond, that was next to the train stop.
           " 10 While he was in taking a swim, a rabbit came, no, a dog came by and stole his clothes.
           " 11 Mr. Pig, stunned, not knowing what to do suddenly spotted a scarecrow that was in a nearby field.
           " 12 Going over and taking off his clothes, he decided that he must now find a way to get back home.
           " 13 While he was walking in the nearby town some people mistook him at a theater for being a famous pianist.
           " 14 While being dragged on stage, Mr. Pig was stunned and didn't know what to do and he tried to tell them that he wasn't the famous pianist but they didn't believe him.
           " 15 They dragged him on stage.
           " 16 And when the real pianist finally arrived and after listening to some of his horrendous playing, the stage crew threw Mr. Pig off the stage and told him to get out!
           " 17 Mr. Pig then decided that he must return home.
           " 18 And several days later after his wife and family had been missing him, Mr. Pig arrived.
           " 19 When he got - that night they had a big meal and a big celebration on Mr. Pig's arrival back home.

College 8 Female

Picture 1  One day there was this pig out walking in the country, he was taking a hike and he had a staff and a sleeping bag and camping equipment in general.
           " 2 And he found a spot that he like, it was in amongst some trees and he decided that was where he'd camp for the night. And he pitched his tent.
           " 3 And he got inside the tent and got in the sleeping bag and went to sleep. Well a heavy wind started to blow up and it started to rain very hard. And the wind just kept blowing and blowing and got very, very ... the rain
(College 8 Female, cont'd)

(Picture 3) started coming very, very hard and the wind pick, just kept getting harder and harder.

" 4 And his tent blew away and all his camping equipment
" 5 And he started to go out on a tree and try to get his tent.
" 6 And the further out on the limb he got, the tree started to crack and break, and it fell. And as it turns out, the tree was on a banking and he fell down the banking and just as he was falling a train was going by and he fell into the coal bin of the train.
" 7 Well he wasn't very happy about that and he got all dirty. So he was sitting in the coal bin waiting for the train to stop.
" 8 And it finally came to a station and he got off and he was covered with soot from head to foot. And across the street he saw a pond so he figured, well, he'd better go over there and wash up.
" 9 So he takes off his clothes and leaves them on the banking and wades into the water to wash up.
" 10 And this dog come along and takes all his clothes and runs off with them.
" 11 Well he's pretty upset, he doesn't know what to do.
" 12 So he takes the scarecrow's clothes. And it's a formal suit with a top hat.
" 13 So he's on his way and he gets in, back into town. And as he's walking by this theater or some kind of auditorium, two men in a, these two other pigs in tuxedos come out and grab him and say, "Where have you been?"
" 14 And they yank him inside the theater and tell him that he's gotta start playing his recital on this piano that was inside.
" 15 Well, he doesn't know what he's doing. He doesn't know how to read music and he's all puzzled and he's sitting there and the other pig introduces him.
" 16 Just as he's about to start this other pig in a top hat and tuxedo comes charging in and chases him off the stage and out the door.
" 17 So he runs off.
" 18 And he runs back to his family who is out in an orchard picking some apples.
" 19 And he tells them their story and they finish picking the apples and they have dinner and that's the end of the story.
Once there was this little pig. He decided to leave home one day and go camping. And so he had all his camping gear on his back and started walking down the road.

"And he saw a good place to set up the tent and everything and set up camp. And so he tacked the tent into the ground and everything.

"He got all settled and he got inside the tent and a big rainstorm started. And the wind started blowing and everything and it was raining really hard.

"And before he knew it, his tent had blown away and all his, you know, his camping gear.

"And the rain stopped, but the wind was still blowing and everything and he saw his tent wrapped around a branch of a tree. It was bent way over some railroad tracks and he started, he figured he'd climb up the tree and get the tent and you know, set up camp again.

"As he was climbing over the, up the tree, the branch broke and he fell onto a train that was passing by underneath.

"And he landed on the train and you know, he couldn't get off until it stopped so he rode all the way till the next stop.

"And when he got off he pretty dirty cause he landed on top of one of the coal cars. The train took off and he looked around and he saw a pond across the tracks.

"So he figured he take his clothes off and he'd kind of wash off in the pond. So he took his clothes off and he got in the water.

"He was splashing around when a dog came by and took all his clothes, and ran off with them.

"And he was quite panicked and didn't know what to do, so he got out of the water and started looking around for, you know, something he could wear. And he saw a scarecrow in some field like you know in some field across a little ways away.

"So he went over to the scarecrow and took all the scarecrow's clothes which were like a dark, black, formal dinner type suit with a top hat and everything.

"So he was walking downtown and he was passing behind the theater and the people mistook him for the person who was supposed to perform because he was wearing the same type of clothes.
(College 9 Female, cont'd)

Picture 14 So they dragged him inside cause, thinking it was supposed to be him and they sat him down at the piano and everything in front of a large audience.

" 15 And, you know, expected him to play or whatever. So he sat there and looked at the music and tried to fake, you know, playing the piano for a while.

" 16 And it didn't work and, all of, you know, the backhands, the stagehands, back stage and everything, started chasing him and all the people are chasing him.

" 17 And he ran out of the theater and down the street.

" 18 And he just kept on running and running till he got home to his family that was working on their apple orchard, picking apples and everything.

" 19 So he just, he went home and he just started helping the family and then that's it.

College 10 Male

Picture 1 This guy decides he's gonna stay out and go out camping for the night.

" 2 And he looks for a spot and he finds a good spot, sets up camp.

" 3 And then he's about ready to go to bed.

" 4 And then a storm comes up and blows his camp, his little tent away, and blew it up into a tree.

" 5 So he went, he climbed the tree to try and get his tent and

" 6 And he fell off onto a train onto a coal truck.

" 7 And he's riding along in the coal car.

" 8 And he gets off it somehow, it doesn't say how he gets down.

" 9 But then he goes and he's all grubby so he goes and takes a bath.

" 10 While he's taking a bath, a dog comes by and takes his clothes.

" 11 So he gets out of the pond and he sees a scarecrow.

" 12 And he borrows his top hat and tux.

" 13 And so he's walking down to the nearest town.

" 14 And some people mistake him for a piano player and they drag into the concert hall.

" 15 And sit him down in front of the piano. And he doesn't know how to play.
Picture 16 So they booo him off the stage.  
" 17 And they kick him out.  
" 18 And then he finally comes to what looks like  
home.  
" 19 And he help people harvest some fruit and  
they all live happily ever after.

College 11 Female

Picture 1 Pig was making his way home, he'd been out  
journeying for a long time. 
" 2 And it was getting to be dark so he decided  
to pitch his tent for the night.  
" 3 But, however, during the night a ferocious  
storm came up. I mean the winds were just  
such --  
" 4 that it blew his tent away and he didn't  
know what to do,  
" 5 so he clung to a tree in an effort to keep  
from being blown around.  
" 6 And he was hanging on and hanging on, but the  
wind was so great that it broke the tree, and  
the poor pig went flying out onto the rail-
road tracks.  
" 7 And more specifically, he went flying onto the  
train that was going by and landed on the coal  
car. And he was getting soot in his eyes from  
the train, the train's smokestack and he just  
clung there not knowing what to do.  
" 8 The storm subsided meanwhile. And they came,  
the train came to a station and he saw a  
little lake nearby but, well, I'll jump off  
while I can.  
" 9 So he got off. Here he is covered with soot,  
wet, tired, blown around, sees the lake and  
decides to take a bath, just wash himself off,  
wash his clothes and try to get back on his  
way again, find out where he is.  
" 10 However, while he's in the water a dog came  
along, runs off with his clothes.  
" 11 He didn't know what to do. He came out, he's  
looking around, couldn't find the dog anywhere,  
he's looking around. So he's looking around,  
trying to decide what to do and he sees a  
scarecrow over in a cornfield.  
" 12 And goes over, decides well those clothes are  
good enough, any clothes are better than none  
at all. And he takes them, it's a nice suit,  
it's a nice tuxedo.
Picture 13 So he wanders into the town, where he's gotten off, trying to decide where he is. He happens to go by the music hall when all of a sudden two, two musicians in tuxedos come running out, "Where have you been, where have you been, we've been waiting for you."

" 14 And they drag him inside, say, "You're late, we almost were worried that you couldn't go on." Poor pig's so bewildered, he doesn't know what's going on.

" 15 And the men, one of the pigs leads him out on stage and there's a huge audience out there, and the grand piano and candelabras and he introduces him as the guest soloist for the evening, playing, oh whatever, Beethoven's Passinato, whatever. Poor pig's just looking at the music, has no idea, is not a musician, never even so much as seen a piece of music in his life.

" 16 He's shaking, he doesn't know what to do. Then all of a sudden, from behind the curtain, comes the real soloist. And he comes out with his fists-a-flying and his cane upraised and he's ready to just kill the imposter.

" 17 And the audience is getting upset at this point, wondering what he's doing there. Poor Pig just rushes out the back door and runs in fear of his life.

" 18 Finally it turns out that the train had taken him to the very, his very destination, back to his home. And as he runs, he, he, he's running down the road he finally sees the, his family, which is, you know, at work picking apples and I guess they're migrant workers.

" 19 And there was a joyful reunion and everybody's happy and the pig's out of trouble and he's just, he's just happy as can be.

College 12 Female

Picture 1  One day a pig was walking down a road, with all of his camping gear.

" 2 And it was a nice day and he was walking down a dirt road and he came upon a place to camp. So he set up his tent, go inside and went to sleep.

" 3 Late that night it started or later that day it started raining, pouring and got really windy.
And all of a sudden the tent started blowing away. And he got all nervous and ran out.

And the tent blew into, onto the branch of a tree. So he climbed up the tree and was going out along the branch to get the tent and suddenly the branch snapped. And below the branch, down the gully was a train track. And a train was coming along and he fell out of the tree right into a vat of coal.

And he rode down the train, got all filthy dirty.

Until finally the train came to a stop and he jumped out. He was walking down the road, didn't know where he was.

And he was filthy dirty and decided to take a bath.

And he was washing himself when a dog ran along and took his clothes. He got out of the lake and decided he had to get some clothes and he saw a scarecrow or some kind of stocks with clothes on.

And he took the clothes off of that. And it was like a tuxedo and a top hat.

And he was walking down the road in the tuxedo and top hat and he came upon a theater. Two people came out of the theater and thinking he was the person to play the piano that night, grabbed him into the theater and said, "It's time for you to play."

So they sat him down at the piano stool and he didn't know what to do because he didn't know how to play.

And he just sat there not knowing what to do and suddenly the real player came in, and said, "This is an imposter, call the police."

And they called the police and chased him out of the theater.

And he was walking down the road again, not knowing where to go again and he ran into a bunch of gypsy pigs who were dancing and picking apples.

And he started helping them pick apples and was dancing around and I think that's the end.
College 13 Male

Picture 1 The little pig went camping. He was a boy scout so he knew how to camp.
" 2 And he set his camp in the woods.
" 3 But bad weather came and he got worried. 
" 4 And then his tent blew away.
" 5 And it got hung up on a tree and he tried to climb the tree and get his tent back
" 6 but he fell into the train
" 7 which was kind of exciting for him, but
" 8 then he got - he got dropped off at some, some, some place - he didn't know where he was.
" 9 And then he decided to go for a swim cause, after that long ride in the coal car, he was kind of dirty.
" 10 While he was swimming some dogs stole his clothes.
" 11 But then, so he decided to do the same thing.
" 12 He stole some business man's clothes. 
" 13 When he was mistaken for a - then in town he was mistaken for a famous pianist. 
" 14 And they dragged him up on stage. 
" 15 And, he started to play. He didn't know how to play
" 16 and so he sort of got kicked off - kicked off the chair
" 17 and was run out of town. 
" 18 And he met up with some, with his family again. 
" 19 And had a good time.

College 14 Male

Picture 1 All right, this is Elmer the pig, right? And he just got out of school and he's all psyched cause he has no work to do or anything and it's in late May and he's going to go out to camp in the woods by himself and just get away and get some rest.
" 2 So he goes into the woods and he sets up camp.
" 3 And he's all psyched and everything and he decides to take a nap. And while he's taking a nap, he's awakened by a terrible storm, one of those May storms that comes and it's a real, real bad storm, and he's all bummed and everything.
(College 14 Male, cont'd)

Picture 4  And this storm has real strong winds and stuff and it blows his tent and everything away. Now all his belongings are all scattered and everything and he's, here he is sitting in the rain, and he's got no shelter.

"  5  And his tent blows up in a tree. And, you know, he doesn't really particularly like getting rained upon so he's gonna get his tent and set up his tent again. So he climbs up this tree.

"  6  And his attempt to get the tent out of tree, he slips off the tree and he fall into a - a coal car, of a passing-by train.

"  7  And while he's in this coal car, he just, you know, getting all dirty and everything and he's just waiting for the nearest stop.

"  8  And he gets off at the first stop which is a few miles down the tracks, and it's in front of this little pond. And now he's all dirty and everything, he's been in this coal car.

"  9  And he decides to take a bath. It's pretty warm out now, it's all cleared up and everything and he just wants to get all cleaned up and feel better. So he takes his clothes off and he, everything except for his underwear and he jumps into the pond and takes his bath and stuff.

" 10  And a dog running by on the shore grabs his clothes. So now he's left there in the pond just with his underwear on and no clothes at all. So now he has to find some clothes.

" 11  So he gets out of the pond and starts looking around and stuff and finds a, a scarecrow in a nearby cornfield, with some pretty spiffy clothes on.

" 12  So he quickly runs over there and just puts them on and you know, these are real fancy clothes, and he feels really sophisticated and everything with these clothes on.

" 13  You know, he's pretty lost, he doesn't really know where he is and everything. So he just walks into the nearest town to find out where he is. And walks into the town and he comes into the back way and passes by a, the back stage door to a, I guess, an auditorium, where he's mistaken for somebody else.
Picture 14 And this guy was late and he really doesn't get a chance to say much, he's just, he looks somewhat like the guy that was late and he just, he's dragged right out onto the stage.

"15 And he's all nervous and he's sweating, he just saw down in front of a solo crowd to play this piano and it ends up he's supposed to be this master piano player and everyone respects him and all this and he's, meanwhile he hasn't had the chance to say anything, he's just dragged out and put down in this piano stool and he's expected to play.

"16 And in the middle of his being introduced, you know, he's just setting there and he's all bewildered, he's just can't believe all of this has been happening to him. And he's sitting at the piano, he's slumped over the piano, he's just getting introduced and the real master piano player comes into the auditorium and chases him.

"17 - right out of the theater. And he's just so scared, he just gets off and runs and runs.

"18 And he runs right out of town. And at the edge of town, the first good thing that happened to him all day, happens - he, he, comes in contact with a family with whom he knows and they're all picking apples. They just, they just pull over the roadside and they're picking apples in this apple orchard.

"19 And he's all happy to see them, you know, and he helps them pick apples and they all sit around and tell stories and they dance and they dance and they have a regular feast with apples.
Appendix C

Story Questions from Study II

1. Why did the pig go camping?
2. Why did the pig set up his tent?
3. How did the pig feel when it was raining?
4. Why did the pig's tent blow away?
5. What did the pig think about doing when his tent blew away?
6. What happened to the tent when it blew away?
7. How do you think the pig felt when he climbed the tree?
8. Why did the pig fall off the tree?
9. Why was the pig all dirty?
10. How did the pig get off the train?
11. Why did the pig go in the water?
12. What did the pig do when the dog ran away with his clothes?
13. Why did the pig put the scarecrow's clothes on?
14. Where did the pig go all dressed up in the scarecrow's clothes?
15. Why were the other two pigs waiting for him?
16. How did the pig feel when he was being introduced?
17. Why did the pig fall off of the piano seat?
18. Who was the man who came onto the stage?
19. What did the pig do after he fell off the piano seat?
20. Why did the pig run?
21. Where did the pig run to?
22. How did the pig feel at the end of the story?
Appendix D
Story Responses of Base-Rate Individuals

Picture 1

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>The pig is walking down the road</td>
</tr>
<tr>
<td>5</td>
<td>The pig is hiking</td>
</tr>
<tr>
<td>5</td>
<td>It's a beautiful, spring day</td>
</tr>
<tr>
<td>4</td>
<td>He has some supplies (a cup) with him</td>
</tr>
<tr>
<td>4</td>
<td>He is happy</td>
</tr>
<tr>
<td>4</td>
<td>He is travelling/journeying/trip</td>
</tr>
<tr>
<td>3</td>
<td>He has a knapsack</td>
</tr>
<tr>
<td>2</td>
<td>He's backpacking</td>
</tr>
<tr>
<td>1</td>
<td>He has a walking stick</td>
</tr>
<tr>
<td>1</td>
<td>He has no home, he just lives outdoors doing odd jobs and learning from observing the world</td>
</tr>
<tr>
<td>1</td>
<td>He went out to get fresh air and soak up some sun</td>
</tr>
<tr>
<td>1</td>
<td>He walked so far that he was no longer in sight</td>
</tr>
<tr>
<td>1</td>
<td>He's hungry</td>
</tr>
<tr>
<td>1</td>
<td>He just ate breakfast</td>
</tr>
<tr>
<td>1</td>
<td>He's heading for an apple orchard to eat lunch</td>
</tr>
<tr>
<td>1</td>
<td>This bold and daring pig is confident and prepared for any emergency</td>
</tr>
<tr>
<td>1</td>
<td>I'm the Pig Scout leader waiting for my troop</td>
</tr>
<tr>
<td>1</td>
<td>Mr. Pig went to the top of the hill, set up camp, ate, then left</td>
</tr>
<tr>
<td>1</td>
<td>I'm a proud pig, walking straight and tall</td>
</tr>
<tr>
<td>1</td>
<td>A pig scout got lost on a camping trip and was scared...</td>
</tr>
</tbody>
</table>

Picture 2

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>It is a nice sunny, breezy spring day</td>
</tr>
<tr>
<td>6</td>
<td>He's setting up his tent</td>
</tr>
<tr>
<td>4</td>
<td>He's camping</td>
</tr>
<tr>
<td>2</td>
<td>He's done setting up, so now he'll relax</td>
</tr>
<tr>
<td>2</td>
<td>He's going to do some fishing</td>
</tr>
<tr>
<td>2</td>
<td>This is a scene from Orwell's <em>Animal Farm</em></td>
</tr>
<tr>
<td>1</td>
<td>He's done setting up his tent, so he's going for a walk</td>
</tr>
</tbody>
</table>
(Picture 2, cont'd)  

<table>
<thead>
<tr>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. There is a skunk in his tent</td>
</tr>
<tr>
<td>10. He tries to light a fire, but there's too much wind</td>
</tr>
<tr>
<td>11. He's hiking</td>
</tr>
<tr>
<td>12. Harold and Arlin are camping after a long hard winter</td>
</tr>
<tr>
<td>13. How great to be alone, even a big strong pig like me needs space</td>
</tr>
</tbody>
</table>

Picture 3  

<table>
<thead>
<tr>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It begins to rain</td>
</tr>
<tr>
<td>2. The pig looks out of his tent</td>
</tr>
<tr>
<td>3. It becomes windy</td>
</tr>
<tr>
<td>4. The pig is camping</td>
</tr>
<tr>
<td>5. He is frightened</td>
</tr>
<tr>
<td>6. The sky and clouds are dark</td>
</tr>
<tr>
<td>7. The pig is in a tent</td>
</tr>
<tr>
<td>8. The pig woke up because of the storm</td>
</tr>
<tr>
<td>9. The pig is getting wet</td>
</tr>
<tr>
<td>10. He's worried by the wind</td>
</tr>
<tr>
<td>11. He'll follow the yellow brick road to safety</td>
</tr>
<tr>
<td>12. He packs up and goes to the woods</td>
</tr>
<tr>
<td>13. He pitches his tent in time to avoid the storm</td>
</tr>
<tr>
<td>14. He wants to play in the fields and sun</td>
</tr>
<tr>
<td>15. He is sad</td>
</tr>
<tr>
<td>16. Piglet likes to travel</td>
</tr>
<tr>
<td>17. He realizes he is in trouble</td>
</tr>
<tr>
<td>18. The three little pigs lost their homes to the wolf, so they try to live in a tent</td>
</tr>
</tbody>
</table>

Picture 4  

<table>
<thead>
<tr>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The pig's things blow away</td>
</tr>
<tr>
<td>2. A big wind comes up</td>
</tr>
<tr>
<td>3. The pig is picnicking (and camping)</td>
</tr>
<tr>
<td>4. She was sitting out enjoying the nice day</td>
</tr>
<tr>
<td>5. It begins to get cloudy and rain</td>
</tr>
<tr>
<td>6. The picnic trip is ruined</td>
</tr>
<tr>
<td>7. The pig is on his knees in bewilderment</td>
</tr>
<tr>
<td>8. The tent gets blown</td>
</tr>
<tr>
<td>9. He doesn't understand</td>
</tr>
<tr>
<td>10. This reminds me of &quot;Charlotte's Web&quot;</td>
</tr>
<tr>
<td>11. He tries to catch his things</td>
</tr>
<tr>
<td>12. The pig wizard brought the tablecloth to life</td>
</tr>
<tr>
<td>13. The sky gets dark</td>
</tr>
</tbody>
</table>
(Picture 4, cont'd)

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. The pig is devastated</td>
<td>1</td>
</tr>
<tr>
<td>15. The pig is frightened</td>
<td>1</td>
</tr>
<tr>
<td>16. The pig is sad</td>
<td>1</td>
</tr>
<tr>
<td>17. He's going to a friend's house</td>
<td>1</td>
</tr>
<tr>
<td>18. He went home</td>
<td>1</td>
</tr>
</tbody>
</table>

**Picture 5**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. He climbed the tree to get the blanket</td>
<td>17</td>
</tr>
<tr>
<td>2. The blanket blew into the tree</td>
<td>15</td>
</tr>
<tr>
<td>3. It's very windy</td>
<td>13</td>
</tr>
<tr>
<td>4. The pig is hanging onto the tree</td>
<td>6</td>
</tr>
<tr>
<td>5. The wind blew the (article) off the laundry line</td>
<td>5</td>
</tr>
<tr>
<td>6. The pig was afraid (of heights)</td>
<td>4</td>
</tr>
<tr>
<td>7. He was on a picnic</td>
<td>2</td>
</tr>
<tr>
<td>8. He had difficulty climbing the tree</td>
<td>2</td>
</tr>
<tr>
<td>9. The branch broke, he fell and got hurt</td>
<td>2</td>
</tr>
<tr>
<td>10. This was Clint Pig's first skydive jump - he landed in a tree</td>
<td>1</td>
</tr>
<tr>
<td>11. The wind blew the picnic away</td>
<td>1</td>
</tr>
<tr>
<td>12. The pig was chased up a tree</td>
<td>1</td>
</tr>
<tr>
<td>13. The pig's brother hid his security blanket</td>
<td>1</td>
</tr>
<tr>
<td>14. The pig was mad</td>
<td>1</td>
</tr>
<tr>
<td>15. The pig is climbing the tree</td>
<td>1</td>
</tr>
<tr>
<td>16. He lived happily ever after</td>
<td>1</td>
</tr>
<tr>
<td>17. Pig began to cry</td>
<td>1</td>
</tr>
<tr>
<td>18. This is a scene from &quot;Winnie the Pooh&quot;</td>
<td>1</td>
</tr>
<tr>
<td>19. His friends threw his blanket into the tree</td>
<td>1</td>
</tr>
<tr>
<td>20. He climbed the tree and it tipped over</td>
<td>1</td>
</tr>
<tr>
<td>21. He tried three times to climb the tree, and made it the last time</td>
<td>1</td>
</tr>
</tbody>
</table>

**Picture 6**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There are two rabbits watching</td>
<td>14</td>
</tr>
<tr>
<td>2. There is a train coming</td>
<td>12</td>
</tr>
<tr>
<td>3. The pig fell</td>
<td>11</td>
</tr>
<tr>
<td>4. The branch broke</td>
<td>8</td>
</tr>
<tr>
<td>5. He landed in the coal</td>
<td>7</td>
</tr>
<tr>
<td>6. He wants to get a closer look at the train from the branch</td>
<td>4</td>
</tr>
<tr>
<td>7. The pig jumps across the tracks</td>
<td>3</td>
</tr>
<tr>
<td>8. The pig is scared</td>
<td>2</td>
</tr>
<tr>
<td>9. Country Pig tired of home, take train to city</td>
<td>2</td>
</tr>
<tr>
<td>10. Takes train to new life (fame and fortune)</td>
<td>2</td>
</tr>
<tr>
<td>11. He's out on the limb getting food</td>
<td>2</td>
</tr>
</tbody>
</table>
(Picture 6, cont'd)

<table>
<thead>
<tr>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. One of the three little pigs climbed the tree to escape the wolf</td>
</tr>
<tr>
<td>13. He's outside on the first spring day</td>
</tr>
<tr>
<td>14. He landed on the ground</td>
</tr>
<tr>
<td>15. He was playing when surprised by a train</td>
</tr>
<tr>
<td>16. He climbed the tree for a better view</td>
</tr>
<tr>
<td>17. The pig jumped into the train to escape an irate farmer's shots</td>
</tr>
<tr>
<td>18. A rabbit falls into the coal</td>
</tr>
<tr>
<td>19. He's chased to the bank</td>
</tr>
</tbody>
</table>

Picture 7

<table>
<thead>
<tr>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The pig stows away in the coal car</td>
</tr>
<tr>
<td>2. He wants to travel far away for excitement</td>
</tr>
<tr>
<td>3. He can't ride the train - it's for humans</td>
</tr>
<tr>
<td>4. The train is going through the country</td>
</tr>
<tr>
<td>5. The pig is enjoying himself</td>
</tr>
<tr>
<td>6. Elmer woke up, looked for his then went to the mud to relax</td>
</tr>
<tr>
<td>7. Arnold decided to have green acres on the cannonball</td>
</tr>
<tr>
<td>8. He ran away from home, then got homesick</td>
</tr>
<tr>
<td>9. He's crazed from ingesting mushrooms and goes to kill the engineer</td>
</tr>
<tr>
<td>10. I decided to leave my pen in the country</td>
</tr>
<tr>
<td>11. The fourth little pig built his house of coal</td>
</tr>
<tr>
<td>12. He couldn't afford the bus, so he took the train</td>
</tr>
<tr>
<td>13. Superpig stopped the train heading for danger</td>
</tr>
</tbody>
</table>

Picture 8

<table>
<thead>
<tr>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. He watched the train go by</td>
</tr>
<tr>
<td>2. He got off the train and looked around</td>
</tr>
<tr>
<td>3. He went/was going for a boat ride</td>
</tr>
<tr>
<td>4. He saw his friends/wife off</td>
</tr>
<tr>
<td>5. He went to explore the country (for the first time)</td>
</tr>
<tr>
<td>6. He missed the train</td>
</tr>
<tr>
<td>7. He didn't want to go on the train</td>
</tr>
<tr>
<td>8. He went toward the lake</td>
</tr>
<tr>
<td>9. He noticed people fishing across the track</td>
</tr>
<tr>
<td>10. He was standing by the station</td>
</tr>
<tr>
<td>11. He was heading home</td>
</tr>
<tr>
<td>12. He took a vacation from reality</td>
</tr>
</tbody>
</table>
13. He was on his lunch break
14. He was going to visit his aunt in Charlestown
15. He was sad

**Picture 9**

1. The pig went for a swim
2. It is a nice day (for a swim)
3. He takes off his clothes
4. The pig bathed in the pond
5. The dog swims with the pig
6. The dog is the pig's friend
7. The pig is the dog's master
8. The pig is dirty
9. They're in the countryside
10. The dog is chasing the pig
11. The lake is near railroad tracks
12. The pig hid from the dog
13. The dog saves the pig
14. A dog is chasing an alien who has just landed
15. A dog is running around a pond
16. The pig is tired of acting human, so he throws his clothes in a pond
17. The pig goes home
18. The pig is walking his dog
19. This pig is in search of truth
20. The dog scared the frog in the lake
21. The dog chases a gnome
22. The troll and the pig escape from the city
23. The dog chases a woodchuck
24. A pig goes to town to buy cornseed
25. The dog goes to see what's in the water
26. The pig plays in the mud then rushes to catch his train

**Picture 10**

1. The pig went swimming
2. The dog took the pig's clothes and ran away
3. The pig screamed (and/or waved his arms)
4. It was a beautiful, hot, sunny day
5. The pig put his clothes on the bank
6. The pig took off his clothes
7. The pig was scared in deep water, so the dog ran for help
8. The pig was embarrassed
9. Someone is bathing
10. This scene is out in the country
11. The pig is upset
12. A rabbit stole the pig's clothes (but returned them) 2
13. The pig sees a boat while sitting by the lake 1
14. I was coming out of a dark tunnel (first person narrative) 1
15. The pig didn't know what to do, so he just continued to swim and enjoy the day 1
16. He had no clothes so he went home 1
17. We're in "pigland," or "the kingdom of pigs" 1
18. As a joke, the husband took the wife's clothes while she was bathing 1
19. The scene is out in the woods 1
20. The pig is scared or appalled by the dog 1
21. The pig has to look for his clothes, which the dog has hidden 1
22. The pig is perplexed 1
23. The dog sees a duck, snaps it up, and runs off, which outrages the other animals 1
24. The rabbit took off his clothes and went in the water 1
25. The dog ran off with an animal which the pig in the water wanted 1

**Picture 11**

1. The pig (animal) went swimming 10
2. He saw a scarecrow 6
3. The pig is in its bathing suit 4
4. The pig is scared 2
5. He thought the scarecrow was a person 2
6. (Someone) used the pig's clothes to make a scarecrow 2
7. The pig is going home 2
8. It's a hot day 2
9. The pig is thinking of taking the scarecrow's clothes 2
10. This is a scene from Orwell's Animal Farm 1
11. He took off his clothes 1
12. An elephant was scared by a scarecrow 1
13. The pig was nervous 1
14. The pig was curious 1
### Picture 12

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>The pig tips his hat</td>
</tr>
<tr>
<td>8</td>
<td>The pig is visiting his wife's grave</td>
</tr>
<tr>
<td>5</td>
<td>The pig went to church</td>
</tr>
<tr>
<td>5</td>
<td>The pig felt good and smiled</td>
</tr>
<tr>
<td>4</td>
<td>The pig was going home</td>
</tr>
<tr>
<td>4</td>
<td>The pig went to a funeral/graveyard</td>
</tr>
<tr>
<td>3</td>
<td>The pig is out for a stroll</td>
</tr>
<tr>
<td>3</td>
<td>The pig is sad</td>
</tr>
<tr>
<td>2</td>
<td>The pig is dressed in his best suit</td>
</tr>
<tr>
<td>2</td>
<td>It's a sunny, spring day</td>
</tr>
<tr>
<td>2</td>
<td>The pig is lonely</td>
</tr>
<tr>
<td>1</td>
<td>The man is out for a stroll and finds a frog in his hat</td>
</tr>
<tr>
<td>1</td>
<td>The pig met a lady pig and a little piglet in a stroller</td>
</tr>
<tr>
<td>1</td>
<td>Mr. Pig sees Mrs. Pig and a scarecrow in the field</td>
</tr>
<tr>
<td>1</td>
<td>A rabbit went to the farm and ate the produce</td>
</tr>
<tr>
<td>1</td>
<td>The pig went into the garden to steal food</td>
</tr>
</tbody>
</table>

### Picture 13

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Two pigs were waiting for the performer, who was late</td>
</tr>
<tr>
<td>6</td>
<td>A pig is walking down the street</td>
</tr>
<tr>
<td>6</td>
<td>The star pig forgot his shirt</td>
</tr>
<tr>
<td>5</td>
<td>Two actors stop a pig and ask him to perform</td>
</tr>
<tr>
<td>2</td>
<td>The pig is shocked/stunned</td>
</tr>
<tr>
<td>2</td>
<td>The three little pigs enter show biz</td>
</tr>
<tr>
<td>1</td>
<td>The owner was shocked that opening night sold out</td>
</tr>
<tr>
<td>1</td>
<td>Two friends are waiting for the third pig</td>
</tr>
<tr>
<td>1</td>
<td>On his way to a restaurant, a pig meets two friends who he owes money</td>
</tr>
<tr>
<td>1</td>
<td>Two pigs jump the third pig</td>
</tr>
<tr>
<td>1</td>
<td>The pig is confused</td>
</tr>
<tr>
<td>1</td>
<td>Two pigs in a play are congratulated by a friend</td>
</tr>
<tr>
<td>1</td>
<td>The bouncers wouldn't let the pig back stage</td>
</tr>
<tr>
<td>1</td>
<td>Two pigs tried to drag a third in to watch the play</td>
</tr>
<tr>
<td>Frequency</td>
<td>Picture 14</td>
</tr>
<tr>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td>11</td>
<td>1. There was an audience of animals</td>
</tr>
<tr>
<td>7</td>
<td>2. The audience was anxious</td>
</tr>
<tr>
<td>6</td>
<td>3. The pig(s) are about to play piano</td>
</tr>
<tr>
<td>5</td>
<td>4. Backstage there are others</td>
</tr>
<tr>
<td>5</td>
<td>5. The pig is anxious/nervous</td>
</tr>
<tr>
<td>4</td>
<td>6. The show is a success</td>
</tr>
<tr>
<td>3</td>
<td>7. There is great applause (as they come on stage)</td>
</tr>
<tr>
<td>3</td>
<td>8. The pig looks out at the full audience</td>
</tr>
<tr>
<td>3</td>
<td>9. This is his debut performance</td>
</tr>
<tr>
<td>2</td>
<td>10. Here is an opera singer and a concert pianist</td>
</tr>
<tr>
<td>2</td>
<td>11. These are the head pigs (President/Vice President)</td>
</tr>
<tr>
<td>2</td>
<td>12. His assistant will turn the music</td>
</tr>
<tr>
<td>2</td>
<td>13. The pig(s) is/are proud</td>
</tr>
<tr>
<td>1</td>
<td>14. Rex and Betty Grodly appear at the opera, Rex trips, the curtains fall, he makes a fool out of himself while his parents watch</td>
</tr>
<tr>
<td>1</td>
<td>15. This looks like a cartoon - Mr. and Mrs. Pig are about to receive the couple-of-the-year award</td>
</tr>
<tr>
<td>1</td>
<td>16. A group of intelligent pigs await the performance of the magician Houdini however, he won't be able to perform</td>
</tr>
<tr>
<td>1</td>
<td>17. The pigs danced, sang and did ten somersaults, and the audience left - disgusted</td>
</tr>
<tr>
<td>1</td>
<td>18. These are important pigs receiving an award</td>
</tr>
<tr>
<td>1</td>
<td>19. The artistic guild is about to perform for the United Farmworkers in a benefit concert to outlaw bacon</td>
</tr>
<tr>
<td>1</td>
<td>20. The audience is in awe</td>
</tr>
<tr>
<td>1</td>
<td>21. Mr. and Mrs. Pig are concert pianists</td>
</tr>
<tr>
<td>1</td>
<td>22. This is a Disneyland show about pigs</td>
</tr>
<tr>
<td>1</td>
<td>23. The pig is introduced, then walks to the piano, where his pants fall down. He pulls them up and continues to play beautifully</td>
</tr>
<tr>
<td>1</td>
<td>24. Man has been transformed to his true nature ... he is limited to an animal mentality</td>
</tr>
<tr>
<td>1</td>
<td>25. In a far away land, animals live as people and have special talents. Swine are musically endowed - this swine's concert was the greatest in the land</td>
</tr>
<tr>
<td>1</td>
<td>26. This pig is about to make a scientific demonstration</td>
</tr>
<tr>
<td>1</td>
<td>27. There is excitement in the air</td>
</tr>
<tr>
<td>1</td>
<td>28. Mr. and Mrs. Pig O. Marsh sang at the monthly Animal Society of the Arts concert because Pavarotti couldn't make it</td>
</tr>
<tr>
<td>1</td>
<td>29. This is the pig's big acting break in &quot;Hog Heaven&quot;</td>
</tr>
<tr>
<td>1</td>
<td>30. This is the annual opera concert</td>
</tr>
</tbody>
</table>
Picture 15

1. A pig introduces the star
2. The performers relatives are backstage
3. The animals are having a concert
4. The performance went well
5. The pig can't play/read music
6. The guest pianist collapses
7. The pianist lost his music
8. The audience is anxious
9. The pig is auditioning
10. Mr. Pig is in an orchestra
11. The pig's music is sabotaged
12. The performer and stagehand are backstage
13. The audience is amused
14. The genius pig is debuting
15. The pianist shows up drunk
16. Original amateur hour
17. This pig is filling in
18. The audience is easy to please
19. The crowd is shocked
20. Pianist falls asleep
21. Pianist forgot his glasses
22. The audience is pleased
23. This is another galaxy where pigs act human
24. The pig is nervous and confused
25. The pigs have taken over
26. The pig is dumbfounded and forgot how to play
27. The audience goes from patient to restless
28. This portrays the human race as pigs
29. The audience is disappointed

Picture 16

1. The piano player and the stool tipped over
2. The imposter locked up the real performer
3. The real player surprises the imposter
4. All the animals were at the show
5. The crowd is in awe/astonished
6. The piano player is interrupted
7. Someone rushed in from backstage
8. The crowd was angry
9. He's not supposed to be on stage
10. Someone left the rear stage exit
11. The real entertainer is upset
12. The father of the piano player doesn't approve, so he stops the show
13. This is a world where animals act human
14. The band is late, and in a frenzy to set up
15. The bewildered audience laughs
16. The pig sings a dirty song, and the outraged owner pushes him
(Picture 16, cont'd)            Frequency
17. The audience is horrified          1
18. The concert hall is in pandemonium 1
19. The promoter chases the pianist for messing
    with his wife                       1
20. The mafia pig shoots the quiet piano pig   1
21. He's scared off his chair          1

Picture 17
1. The pig groom is running from his wedding   8
2. Everyone is irate/horrified              2
3. The pig runs from court during his trial   2
4. This is a pig mafia meeting              1
5. The pig is late for his wedding          1
6. The pig did something wrong in church, so
    he runs                                1
7. The police stopped the invisible, violating
    pig                                     1
8. A tuxedo clad pig runs to tuxedo clad mice 1
9. The groom pig forgot the ring            1
10. A crazed pig runs in front of a car      1
11. A pig runs from a town meeting on pig
    slaughtering                           1
12. The pig forgot his speech at home       1
13. The pig just held up a bank             1

Picture 18
1. Father pig runs home with good/urgent news 6
2. A pig family picks apples                  6
3. Father pig returns after a long trip       2
4. The farmer chases the pigs from his cherry
    orchard                                1
5. Pig kids investigating abandoned wagon    1
6. Humans become pigs through evolution      1
7. A pig family is on a trip to visit friends 1
8. A family was scared by a great black bird 1
9. Three little pigs picking apples are chased
    away                                    1
10. Father pig forgot something              1
11. They have a good time                    1
12. The eldest son returns after six months   1
13. Father pig is late for a wedding         1
14. The judge tells the pig family they have
    won the lottery                        1
<table>
<thead>
<tr>
<th>Picture 19</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. This is a band of roving gypsy pigs</td>
<td>12</td>
</tr>
<tr>
<td>2. Mama is cooking</td>
<td>12</td>
</tr>
<tr>
<td>3. The three children play (juggle apples)</td>
<td>9</td>
</tr>
<tr>
<td>4. The pig family stops to camp (rest, eat)</td>
<td>8</td>
</tr>
<tr>
<td>5. They come to an orchard</td>
<td>6</td>
</tr>
<tr>
<td>6. They are content - happy - celebrating</td>
<td>6</td>
</tr>
<tr>
<td>7. The father and son pick apples</td>
<td>5</td>
</tr>
<tr>
<td>8. Papa and uncle steal apples</td>
<td>4</td>
</tr>
<tr>
<td>9. There are six pigs</td>
<td>3</td>
</tr>
<tr>
<td>10. Two pigs pick apples</td>
<td>3</td>
</tr>
<tr>
<td>11. The family picked apples</td>
<td>2</td>
</tr>
<tr>
<td>12. The pigs are (on) applesauce makers (factory)</td>
<td>2</td>
</tr>
<tr>
<td>13. They are on their way to a fair/carnival</td>
<td>2</td>
</tr>
<tr>
<td>14. Mother pig works hard</td>
<td>1</td>
</tr>
<tr>
<td>15. These are pioneer pigs conquering new lands</td>
<td>1</td>
</tr>
<tr>
<td>16. The family is tired from the day's activities</td>
<td>1</td>
</tr>
<tr>
<td>17. Grandmother is cooking</td>
<td>1</td>
</tr>
<tr>
<td>18. Three pigs dance</td>
<td>1</td>
</tr>
<tr>
<td>19. The pig family went west in search of wealth. Father was eaten in Oregon, the rest escaped to California, where they found apples</td>
<td>1</td>
</tr>
<tr>
<td>20. We're journeying to California</td>
<td>1</td>
</tr>
<tr>
<td>21. The pigs make money by harvesting oranges in Florida and live comfortably, until they were made into bacon</td>
<td>1</td>
</tr>
<tr>
<td>22. Once the pigs eat the apples, they become base and lowly creatures, slaves to mankind, with neither will nor intelligence</td>
<td>1</td>
</tr>
<tr>
<td>23. This reminds me of Uncle who died last week. He was a murdered...</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix E

Story Picture Responses:
Total Frequencies and Frequencies by Age

<table>
<thead>
<tr>
<th>Picture 1</th>
<th>NS</th>
<th>1</th>
<th>2</th>
<th>A</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The pig went camping</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>25</td>
</tr>
<tr>
<td>2. The pig is walking</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>18</td>
</tr>
<tr>
<td>3. He has his camping gear</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>4. The pig went hiking</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>5. He's on his way home to visit his family</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>6. He's carrying a stick</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>7. This is (name) pig</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>8. He's trying to get away and get some rest</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>9. He's going fishing</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>10. He decided to leave home</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>11. He went for a trip somewhere</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>12. A gentleman pig was going out</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>13. He's making a tent</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>14. He went hunting</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>15. He's going west</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>16. The three little pigs</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>17. There was a pig</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>18. He's just a vagabond</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>19. He's out of school</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>20. He's all psyched as he has no work and it's late May</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>21. Mr. Pig decided to take a weekend off from his family</td>
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<td>22. He was a boy scout, so he knew how to camp</td>
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<td>23. Pig is coming home after spending years in the army</td>
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<td>24. He didn't have any money to ride, so he walked back.</td>
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<td>25. What am I suppose to bring</td>
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<td>26. I'm suppose to bring my pan, backpack, and tent</td>
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<td>1. He's setting up his tent</td>
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<td>2. He went camping</td>
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(Picture 2, cont'd)

3. He went to sleep for the evening 2 0 0 5 7
4. Found a nice place (to set up his tent) 0 1 0 6 7
5. It was getting dark 0 0 2 3 5
6. Found spot under trees 0 0 0 2 2
7. It was a nice day 0 0 0 2 2
8. He tucked up his tent 0 0 0 2 2
9. He found a tent 1 0 1 0 2
10. He found a place to sit 0 0 1 0 1
11. He put the stick down 0 1 0 0 1
12. He got out his pan 0 1 0 0 1
13. And all that when he went for a trip 0 1 0 0 1
14. He went fishing 0 1 0 0 1
15. He don't think he got caught 0 1 0 0 1
16. He don't got no sticks 0 1 0 0 1
17. The pig went in the water 0 1 0 0 1
18. A pig and a tent 1 0 0 0 1
19. He walked 0 0 1 0 1
20. He went in it 0 0 1 0 1
21. He brang his tent 0 0 1 0 1
22. He had a tent and stuff to help him 0 0 1 0 1
23. He's starting to make a fire 0 1 0 0 1

Picture 3

1. It started raining 30 9 6 7 8
2. A big wind/storm came 23 0 6 2 15
3. He is sleeping in his tent 17 5 0 4 8
4. He's in the tent 2 2 4 0 8
5. He's looking out of the tent 2 1 1 0 4
6. His tent fell down 2 0 0 0 2
7. He heard noises in the night 1 0 0 0 1
8. He was scared 0 1 0 0 1
9. He saw leaves coming down on the tent 0 1 0 0 1
10. The pig saw some bees 0 1 0 0 1
11. I don't know what's happened there 0 1 0 0 1
12. His tent couldn't stay there long enough anymore 0 0 1 0 1
13. He got out 0 0 1 0 1
14. And at night fall 0 0 1 0 1
15. It was a hurricane 0 0 1 0 1
16. Then he put the pole up 0 0 1 0 1
17. He's afraid his tent will blow away 0 0 0 1 1
18. He's worried 0 0 0 1 1
19. He's "bummed out" 0 0 0 1 1
20. He left his fire 0 1 0 0 1
### Picture 4

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<th>The wind blew his tent away</th>
<th>Now it's raining and windy</th>
<th>His tent was caught in a tree</th>
<th>His other gear blew away</th>
<th>He was scared</th>
<th>He climbed the tree after his tent</th>
<th>A tree with a pig's pillow</th>
<th>And then he was going bird shooting</th>
<th>The grass fell</th>
<th>He saw a green bird</th>
<th>And he went backwards</th>
<th>Oh, no - he's going to get all wet</th>
<th>Then his tent went flying</th>
<th>He got nervous</th>
<th>He ran out</th>
<th>His belongings were scattered</th>
<th>He was sitting in the rain</th>
<th>He had no shelter</th>
<th>The stick, the food blew away</th>
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### Picture 5

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<tr>
<th></th>
<th>He's climbing a tree</th>
<th>He's trying to get his tent</th>
<th>His tent got stuck on a branch</th>
<th>He holds on carefully so he doesn't fall</th>
<th>It blew him onto a tree</th>
<th>He was so surprised</th>
<th>It's still raining</th>
<th>And then he got scared</th>
<th>The pig tried to get his</th>
<th>The tree had the tent</th>
<th>And he fell off the tree</th>
<th>The tree broke and he fell</th>
<th>And he got stuck on a tree</th>
<th>He was there until morning</th>
<th>He goes along the branch</th>
<th>Clings to tree so as not to blow around</th>
<th>He didn't like getting rained on</th>
<th>The rain stopped but the wind blew</th>
<th>He tries to catch it</th>
<th>The wind is still flapping away at his tent</th>
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**Picture 6**

<table>
<thead>
<tr>
<th>Event Description</th>
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<th>1</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. He fell/landed in the train</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td>2. He fell off the tree</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>3. The branch broke</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>4. A train was coming</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>5. He's jumping over the train</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>6. There were train tracks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>7. He goes after his tent</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>8. He goes further out on the limb</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>9. He fell off of the train</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>10. He jumped on a train</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>11. His tent was blown</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12. He's climbing a branch</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
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<tr>
<td>13. He almost got it (tent)</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>14. Now the tent falls</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>15. Somebody pushed him off the train</td>
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<tr>
<td>16. A pig trying to catch a train</td>
<td>1</td>
<td>0</td>
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<td>0</td>
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</tr>
<tr>
<td>17. And then he ran away</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>18. A train with some bunny rabbits and a pig</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>19. He flew over the train</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>20. He didn't get his tent</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>21. The tent went off</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>22. And blew the train under him</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>23. Jumped over a tree</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>24. The rabbit pushed him</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>25. And he got in it</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>26. And he flew down after it</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>27. The pig skipped</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>28. Down went the pig</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>29. And then morning came</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>30. It had coal on it</td>
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<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>31. The wind kept blowing and blowing him</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
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<tr>
<td>32. The tent goes flying</td>
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<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>33. He was hanging on but the wind was great</td>
<td>0</td>
<td>0</td>
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<td>1</td>
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<tr>
<td>34. He went flying into the railroad tracks</td>
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**Picture 7**

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<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. He got all dirty</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>2. He landed in coal (mud)</td>
<td>2</td>
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<td>7</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>3. He fell on a train</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>4. He took a ride on it</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>5. He's on the train</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>6. The train was going</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. He held on until the next stop</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>8. The train started to leave</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>9. He got on it</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
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<tr>
<td>10. The train went fast</td>
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### Picture 7, cont'd

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<th>T</th>
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</thead>
<tbody>
<tr>
<td>11</td>
<td>The tent takes off</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>He doesn't know where he's going</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>The soot is from smokestacks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>He didn't know what to do</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>He falls beside a train</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>He was not happy</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>It was exciting</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>He sees a pond</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>The pig is stunned</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>He decided to catch a train</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>He sat down</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>He sneezed</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>He was jumping over to grab his tent</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>And he jumped on the train</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>25</td>
<td>There was smoke</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>The little black pig</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>27</td>
<td>And he got on the train right where the rocks were</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>28</td>
<td>Then he couldn't jump over the train</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>29</td>
<td>And then he found a safe place</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>A pig going to Brooklyn</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>31</td>
<td>He thought he was going to fall out of the train</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>32</td>
<td>He got back in the train again</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>33</td>
<td>He holded on</td>
<td>0</td>
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### Picture 8

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<tbody>
<tr>
<td>1</td>
<td>He got off the train</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>2</td>
<td>He saw a lake/pond</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td>3</td>
<td>He was going to bathe/wash up or/ make himself clean</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>He's black from the coal/soot</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>He gets off at a station</td>
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<td>0</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>He didn't know where he was</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>He saw the train go by</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>The pig jumped off</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>The train stopped</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>He got all muddy</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>He wanted to swim</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>And go in there</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>He went to a pond</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>There were footprints all over the world</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>He fell out of the train</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>He did not know what train to take</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>A pig waiting at a subway station</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>A pig in a train</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>Now he looking</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>20</td>
<td>The he took the dog</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
(Picture 8, cont'd)

21. There was a mouse, a cow, a chipmunk and a chicken in the train
22. The train took the tent
23. And so he
24. He was going to take his clothes off
25. He went to town
26. And rode the bus (actually the river)
27. He got dropped off
28. He walked down the road
29. The storm subsided
30. He got the train, I don't know how
31. The train took off
32. He missed the train

Picture 9

1. He's taking off his shirt/clothes
2. He went swimming
3. He took a bath
4. He jumped in the pond
5. He was dirty
6. He leaves his clothes on the bank
7. He got off the train
8. It's warm out
9. The storm is over
10. He leaves on his underwear
11. He was wet
12. He was tired
13. He was blown around
14. He washes his clothes
15. He tries to find out where he is
16. The train leaves
17. He runs to the pond
18. He jumps the fence
19. He got into his shorts
20. But he didn't see a dog
21. He went to the beach
22. And so he had his bathing suit
23. He's going to come
24. The pig that saw a dog
25. He just came out of the water
26. A pig in some water
27. A spider

Picture 10

1. The dog took his clothes
2. A dog came by
3. He's in the water
(Picture 10, cont'd)

4. He has no clothes
5. He was swimming
6. He's sinking/drowning
7. He was bare
8. The rabbit took his clothes
9. He didn't know what to do
10. Left in his underwear
11. Has to find new clothes
12. The dog spots him from the other side of the lake
13. He can't go home without clothes
14. He jumped in the lake
15. Now he has to stay in
16. He's running to the grass
17. A pig and a dog
18. Dog runs away
19. And now a doggie
20. And then he was in the middle of it
21. He was screaming and yelling
22. And then he was drowning
23. And he wanted someone to help him
24. But the person took his stuff away
25. And then her was taking a bath
26. And then the cat runs off with his shirt
27. Get away from here and bring my clothes back

Picture 11

1. He saw a scarecrow
2. He got out of the water
3. He doesn't have any clothes
4. He's taking the scarecrow's clothes
5. He's in his underwear/bathing suit
6. He was looking for his clothes
7. Scarecrow had (nice) clothes on
8. Looks around
9. He didn't know what to do
10. Then the rabbit took his clothes
11. Decides he needs clothes more than the scarecrow
12. He was wet
13. He decided to do the same thing
14. He's in a panic/upset
15. Can't find the dog
16. Tries to decide what to do
17. He's stunned
18. He chased the dog
19. He's in quite a predicament
(Picture 11, cont'd)

<table>
<thead>
<tr>
<th></th>
<th>NS</th>
<th>1</th>
<th>2</th>
<th>A</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>20. He's going over there</td>
<td>0</td>
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<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>21. Then a hook was on the bridge</td>
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<td>0</td>
<td>1</td>
</tr>
<tr>
<td>22. And he went over on the bridge</td>
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<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>23. So he walked away</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>24. He was cold</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
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<tr>
<td>25. He tries to figure out where he's going to get some clothes</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>26. He looked at that/them</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>27. He's got to go someplace too</td>
<td>0</td>
<td>1</td>
<td>0</td>
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<tr>
<td>28. He looked over where the fence is</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>29. He started to walk - he went home</td>
<td>1</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>30. He thought it was a person</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>31. He got scared</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>32. A bear in a bridge</td>
<td>1</td>
<td>0</td>
<td>0</td>
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<tr>
<td>33. He was a man running</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>34. And he (the dog) runned away</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>35. I could use those clothes</td>
<td>0</td>
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</table>

Picture 12

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<tbody>
<tr>
<td>1. He took the scarecrow's clothes</td>
<td>9</td>
<td>9</td>
<td>8</td>
<td>9</td>
<td>35</td>
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<tr>
<td>2. The scarecrow's clothes are fancy</td>
<td>0</td>
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<td>11</td>
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<tr>
<td>3. He put the clothes on</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>4. He goes over to the scarecrow</td>
<td>0</td>
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<td>0</td>
<td>6</td>
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</tr>
<tr>
<td>5. He puts on the scarecrow's clothes</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. He goes away</td>
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<td>0</td>
<td>0</td>
<td>3</td>
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<tr>
<td>7. He decides the scarecrow's clothes are better than none</td>
<td>0</td>
<td>0</td>
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<td>2</td>
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<tr>
<td>8. He tries to go home</td>
<td>0</td>
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<td>2</td>
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<tr>
<td>9. He dressed up like a man</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>10. He's holding his hat</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>11. There he walks</td>
<td>0</td>
<td>0</td>
<td>2</td>
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</tr>
<tr>
<td>12. He feels sophisticated</td>
<td>0</td>
<td>0</td>
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<tr>
<td>13. He stole a businessman's suit</td>
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<tr>
<td>14. He bought a new suit</td>
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<tr>
<td>15. Then he saw a garden</td>
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<td>0</td>
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<tr>
<td>16. He saw a scarecrow</td>
<td>0</td>
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</tr>
<tr>
<td>17. Then he walks away looking very happy</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>18. He was talking to the other</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>1</td>
</tr>
<tr>
<td>19. Then he's gonna try to find a hat</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>20. And then he went to his family</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>1</td>
</tr>
<tr>
<td>21. He didn't know it was a scarecrow</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>22. He found them</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>23. And now he's a piano player</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>24. Pretending he was a scarecrow</td>
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<td>0</td>
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<tr>
<td>25. He looked nice</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>26. Taking a walk around the woods in the country</td>
<td>1</td>
<td>0</td>
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<tr>
<td>27. A pig with a bridge again and some water</td>
<td>1</td>
<td>0</td>
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<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
28. And he had some clothes
29. All there was left was two sticks
30. "I wonder where he got those clothes?"
    Maybe he went back home and got them
31. Took off his hat

Picture 13

1. He walks into town
2. Then he saw two other pigs
3. He passes a theater
4. He's mistaken for the real performer
5. Two dressed-up pigs come out the stage door
6. Two pigs ask where he's been
7. Two other pigs are dressed like him
8. Two pigs greet him
9. He's lost
10. He comes in the back way
11. He doesn't know what's going on
12. Two distinguished looking pigs
13. He's suspicious
14. Tries to decide where he is
15. Two pigs ask him to perform
16. He walks into a theater party
17. And a man let him in
18. Then he met a guy
19. Then he came to someone's house
20. They stopped him
21. He was the man who played the organ
22. The man said "what are you doing here"
23. Three pigs and a building
24. They are all dressed in black
25. He did not know but he was all dressed in black
26. He's got his hat on
27. An opera with pigs
28. And people thought he was a major
29. Then some people saw him
30. And thought he was someone else so they could sing
31. And when he turned the corner on the street
32. Two other pigs joined him in a club
33. They might be laughing at him
34. He's all dressed up
35. So he could go with the other pigs
36. And these guys started talking to him
37. The pig that saw two guys miss him
38. He stopped 0 1 0 0 1
39. He went to a store 0 0 1 0 1
40. They had on better clothes 0 0 1 0 1
41. Then the two men came out and thought
   he was the magician 0 0 1 0 1
42. Then he got dressed 0 0 1 0 1
43. He went to the court 0 0 1 0 1
44. Went to this place 0 1 0 0 1

Picture 14

1. He's dragged onto the stage 0 0 2 13 15
2. Now he's going to play piano 2 1 8 0 11
3. Then he got up on stage 2 5 2 0 9
4. He's in front of a crowd 0 1 3 1 5
5. He didn't know what to do 0 0 0 4 4
6. Then someone was introducing him 3 0 0 0 3
7. They mistook him for a piano player 0 0 0 3 3
8. He's holding the curtains 2 0 0 0 2
9. Then he went into the house 2 0 0 0 2
10. People were waiting to hear him 0 0 0 2 2
11. They sat him at the piano 0 0 0 2 2
12. This guy was late 0 0 0 2 2
13. Then they had a show 0 2 0 0 2
14. He didn't get a chance to play much 0 0 0 1 1
15. He's in a big concert hall 0 0 0 1 1
16. The pig is bewildered 0 0 0 1 1
17. The two other pigs are worried because he's late 0 0 0 1 1
18. They tell him to play piano 0 0 0 1 1
19. The pig is stunned 0 0 0 1 1
20. He tried to tell them who he really is 0 0 0 1 1
21. They didn't believe he wasn't the pianist 0 0 0 1 1
22. Walking by a studio door 0 0 0 1 1
23. They ask him where he's been 0 0 0 1 1
24. He asks why they're waiting for him 0 0 0 1 1
25. Then the people brought him in the studio 0 0 1 0 1
26. For him to think 0 0 1 0 1
27. And they went to an orchestra 0 0 1 0 1
28. And he's embarrassed of all the people 0 0 1 0 1
29. Then one of the pigs thought he was one of them 0 0 1 0 1
30. And there was a big crowd 0 0 1 0 1
31. And he went outside 0 0 1 0 1
32. Then he went to a party 0 0 1 0 1
33. He must be all wet 0 1 0 0 1
34. He was sweating 0 1 0 0 1
(Picture 14, cont'd)

<table>
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<tr>
<th></th>
<th>NS</th>
<th>1</th>
<th>2</th>
<th>A</th>
<th>T</th>
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<tbody>
<tr>
<td>35. And the man moved the curtains</td>
<td>0</td>
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</tr>
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<td>36. So that he-they could get by</td>
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<td>0</td>
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<tr>
<td>37. And all the animals are out there sitting on the chairs</td>
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<tr>
<td>38. And the other pigs were here</td>
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<td>0</td>
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</tr>
<tr>
<td>39. So they went to a graduation</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>40. The table was knocked over</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>41. The audience don't know who he is</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>42. He had to do what they said, so he did</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>43. Now he's going to show them something</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>44. A building and some pigs</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>45. He said it was a long way home</td>
<td>1</td>
<td>0</td>
<td>0</td>
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<td>1</td>
</tr>
<tr>
<td>46. And all the people who were in the train</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>47. And opera with pigs</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>48. They thought he was going to play the piano</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>49. So they held his hand</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>50. And he ran</td>
<td>0</td>
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<td>0</td>
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</tbody>
</table>

Picture 15

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<td>1. He was playing the piano</td>
<td>13</td>
<td>7</td>
<td>9</td>
<td>1</td>
<td>30</td>
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<tr>
<td>2. He was introduced</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>10</td>
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<tr>
<td>3. He sat at the piano</td>
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<td>2</td>
<td>0</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>4. He was dragged on stage</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>5. He doesn't know how to play</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>6. He was expected to play piano</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>7. He'd never seen music before</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>8. He doesn't know what he's doing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
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<tr>
<td>9. He looked at the music</td>
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<td>0</td>
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<td>10. He was mistaken for &quot;maestro&quot;</td>
<td>0</td>
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<tr>
<td>11. He sat in front of a crowd</td>
<td>0</td>
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<tr>
<td>12. The pig went up on stage</td>
<td>1</td>
<td>1</td>
<td>0</td>
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<td>13. He's supposed to be great</td>
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<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
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<tr>
<td>14. He's serious</td>
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<td>1</td>
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<tr>
<td>15. He's sweating</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>16. Everyone respects him</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>1</td>
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<tr>
<td>17. He had no chance to say anything</td>
<td>0</td>
<td>0</td>
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<tr>
<td>18. He tried to fake it</td>
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<tr>
<td>19. He was the guest soloist for the evening</td>
<td>0</td>
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<tr>
<td>20. The pig is puzzled</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>21. He's scared</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>1</td>
</tr>
<tr>
<td>22. He looks out and sees a crowd</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>23. The crowd is waiting for him to play</td>
<td>0</td>
<td>0</td>
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<td>1</td>
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<tr>
<td>24. The house is filled</td>
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<td>0</td>
<td>0</td>
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<td>1</td>
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<tr>
<td>25. He can't even get through chopsticks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
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<tr>
<td>26. A pig singing</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>27. The people who are singing</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
</tbody>
</table>
(Picture 15, cont'd)

28. The building and some people
29. The curtains by itself
30. Then the man said "what are you doing?"
31. While all the animals are sitting out there
32. Then the man was watching him
33. He's thinking
34. He got tired
35. Everyone was clapping
36. And he got on the chair
37. And then he messed up
38. Then two pigs went back to the curtains waiting for their turn
39. He suppose to play the piano

Picture 16

1. Then he fell off the chair/piano seat
2. The real guy came in
3. He was thrown out
4. The real guy chases him
5. He ran out
6. He messes up
7. He was just sitting there
8. Now he's playing the piano
9. They scared him
10. He doesn't know what to do
11. The real pig is upset
12. He was knocked off the piano stool
13. Then the other pigs came in
14. He knocks him out and fights him
15. He was stealing the show
16. He's in the middle of being introduced
17. He's bewildered
18. He can't believe what's happening to him
19. He's slumped over the piano
20. Everyone is mad
21. He's shaking
22. The real pig threatens to call the police
23. The real pig listened a while
24. Everyone realized he couldn't play
25. He looks at the keys and tries to figure out how to play
26. Because he was mad
27. He knocked over the bench
28. And knocked the man who was playing the piano
(Picture 16, cont'd)

29. And then these two guys saw 1 0 0 0 1
30. Then he went out 1 0 0 0 1
31. He's all done playing the piano 1 0 0 0 1
32. And the pig got up on the stage 0 1 0 0 1
33. He jumped off the table 0 1 0 0 1
34. And the crowd say - oh! 0 1 0 0 1
35. And then the man didn't think he was doing that well 0 1 0 0 1
36. And then he blew off 0 1 0 0 1
37. Because some people opened the door 0 1 0 0 1
38. And it was windy 0 1 0 0 1
39. And he blew away 0 1 0 0 1
40. And the real magician came in 0 0 1 0 1
41. Looks like mad 0 0 1 0 1
42. The judge came running out 0 0 1 0 1
43. And then the audience looked surprised 0 0 1 0 1
44. So he running to get him 0 0 1 0 1
45. Then one of the pigs yelled 0 0 1 0 1
46. And he tripped over 0 0 1 0 1
47. Some pigs and a door 1 0 0 0 1
48. The other guy is looking at him 0 1 0 0 1
49. He wanted to run away 0 1 0 0 1

Picture 17

1. The pig ran 16 12 11 11 50
2. He ran away 4 4 1 0 9
3. He ran home 0 3 3 1 7
4. He's running down the road 0 0 2 3 5
5. Ran out of building/club 3 1 0 0 4
6. He ran because he was chased 2 0 2 0 4
7. Ran out the door 0 1 3 0 4
8. They all get angry at him 0 0 0 2 2
9. He's scared 0 0 0 2 2
10. He runs and runs 0 0 0 2 2
11. He is run out of town 0 0 0 2 2
12. He is chased out of the theater 0 0 0 2 2
13. All he can think of is leaving 0 0 0 1 1
14. He runs as fast as he can 0 0 0 1 1
15. He wonders what he's doing there 0 0 0 1 1
16. He runs in fear of his life 0 0 0 1 1
17. They call the police 0 0 0 1 1
18. They kick him out 0 0 0 1 1
19. The people thought he tried to fool them 0 0 0 1 1
20. He ran off to the people 0 1 0 0 1
21. And he never wanted to go back there again 0 1 0 0 1
22. And then like the people wanted him to come back again 0 1 0 0 1
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<td>23. He ran because he saw the cops</td>
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<td>24. A car and some pigs</td>
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<td>25. Everyone shouted &quot;There he is, he's running down the street&quot;</td>
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**Picture 18**

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<td>2. Pig ran</td>
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<td>3. He saw people picking apples</td>
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<td>4. His family is picking apples</td>
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<td>6. It's filled with pigs</td>
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<td>7. He's happy to see his family</td>
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<td>8. He helped people pick apples</td>
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<td>10. Sees his mother</td>
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<td>14. He doesn't know where to go</td>
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<td>15. He finds gypsies dancing and picking apples</td>
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<td>16. He finds his wife</td>
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<td>17. Train took him to his own destination</td>
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<td>21. They all shouted for him</td>
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<td>0</td>
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<td>26. The four pigs that were on the trailer</td>
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<td>28. Picking apples to make apple pie</td>
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<td>32. And he's going over to the girl who is in the wagon</td>
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<td>35. He's climbing the ladder</td>
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<td>He helped pick apples</td>
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<td>2</td>
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<td>2</td>
<td>They lived happily ever after</td>
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<td>3</td>
<td>He's playing (with his kids)</td>
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<td>1</td>
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<td>They ate (dinner)</td>
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<td>0</td>
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<td>3</td>
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<tr>
<td>5</td>
<td>They're dancing</td>
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<td>0</td>
<td>3</td>
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<td>6</td>
<td>They celebrate</td>
<td>0</td>
<td>1</td>
<td>0</td>
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<td>They were having fun</td>
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<td>His mother cooked some food (gulash)</td>
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<td>They sit around and tell stories</td>
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<td>A family takes him in and gives him clothes</td>
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<td>0</td>
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<td>0</td>
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<td>He helps them harvest fruit</td>
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<td>They all played around</td>
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<td>His sons dance</td>
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<td>0</td>
<td>0</td>
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<td>22</td>
<td>His wife cooks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<td>23</td>
<td>His four brothers pick apples</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>24</td>
<td>And then he went to a house</td>
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<td>0</td>
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<td>And he stayed there</td>
<td>0</td>
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<td>1</td>
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<td>26</td>
<td>Horray! he shouted</td>
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<td>27</td>
<td>He's trying to catch</td>
<td>0</td>
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<td>He's climbing up the tree to get them</td>
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<td>Then he started to help them</td>
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<td>And they helped him</td>
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<td>And he got to have whatever he wanted</td>
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<td>The six pigs that lived together</td>
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<td>Then he saw some more piggies</td>
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<td>And they all went down</td>
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<td>And they had a cookout</td>
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<td>And then the pig lifted it up</td>
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<td>45</td>
<td>Then he was a boy scout</td>
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<td>Three pigs, a car and a ladder</td>
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<tr>
<td>47</td>
<td>Then one dressed in black couldn't catch him until he came down</td>
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<td>48</td>
<td>They are fixing stuff</td>
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<td>Father pig is putting them in basket</td>
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Appendix F

Answers to Questions for Study II:
Total Frequencies and Frequencies by Age

1. Why did the pig go camping? NS 1 2 A T
   1. To get away 0 3 1 5 9
   2. He wanted to 3 2 1 2 8
   3. Don't know 3 2 0 1 6
   4. To go swimming (get washed) 5 0 0 0 5
   5. For a vacation 1 1 1 0 3
   6. He had no place to live 1 0 0 1 2
   7. To have a nice time/fun 0 2 0 0 2
   8. He had to 1 0 0 0 1
   9. To study 0 1 0 0 1
   10. Because he liked to see animals 0 0 1 0 1
   11. To see the woods 0 0 1 0 1
   12. To be alone 0 0 1 0 1
   13. It was his first time 0 0 1 0 1
   14. It was a nice day 0 0 1 0 1
   15. To experience nature 0 0 0 1 1
   16. To get outside 0 0 0 1 1

2. Why did he set up his tent?
   1. To sleep in 3 8 5 6 22
   2. For shelter 1 0 0 6 7
   3. To go in it 4 0 0 0 4
   4. He wanted to 1 1 0 0 2
   5. He'd found a good spot 0 0 2 0 2
   6. He did 1 0 0 0 1
   7. To cook supper 1 0 0 0 1
   8. Because it was dark 0 1 0 0 1
   9. To camp 0 1 0 0 1

3. How did the pig feel when it was raining?
   1. Sad 2 8 3 0 13
   2. Scared 2 0 3 3 8
   3. Surprised 0 0 0 4 4
   4. Mad 0 0 0 3 3
   5. Wet 1 2 0 0 3
   6. Cold 0 0 2 0 2
   7. Don't know 2 0 0 0 2
(Question #3, cont'd)

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<td>8. Lonely</td>
<td>1</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>9. Like he was sick</td>
<td>1</td>
<td>0</td>
<td>0</td>
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<td>1</td>
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<tr>
<td>10. Didn't like it</td>
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<td>0</td>
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<td>11. Disappointed</td>
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<td>12. Apprehensive</td>
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4. Why did the pig's tent blow away?

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<td>10</td>
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<td>2. It wasn't secure</td>
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<td>3. It was light</td>
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5. What did the pig think about doing when his tent blew away?

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</thead>
<tbody>
<tr>
<td>1. Getting it back</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>11</td>
<td>29</td>
</tr>
<tr>
<td>2. Going home</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3. Calling firemen/police</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4. Waiting for a nice day</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>5. Swimming</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>6. Grabbing the branch/falling into the train</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7. His wife and kids</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>8. Blew into a tree</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>9. Walking down the path</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
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</tbody>
</table>

6. What happened to the tent when it blew away?

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</tr>
</thead>
<tbody>
<tr>
<td>1. Got caught in a tree</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>2. It got wrecked</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3. Don't know</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>4. Turned into a blanket</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>5. Fell to the ground</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>6. Got lost in the woods</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7. Blew across the tracks</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
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</tbody>
</table>

7. How do you think the pig felt when he climbed the tree?

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<thead>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Scared</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>2. Bad/sad</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>3. Happy</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>4. Hopeful</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>5. Determined/to find tent</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. Like he was going to fall</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7. Don't know</td>
<td>1</td>
<td>0</td>
<td>0</td>
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(Question #7, cont'd)

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<tbody>
<tr>
<td>8. Nervous</td>
<td>0 0 0 1 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Fat</td>
<td>0 0 0 1 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Unbelieving</td>
<td>0 0 0 1 1</td>
<td></td>
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</table>

8. Why did the pig fall from the tree?

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<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1. The branch broke</td>
<td>3 3 2 4 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. He slipped</td>
<td>2 1 3 2 8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. He was too heavy</td>
<td>0 0 0 4 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Because of the wind</td>
<td>0 1 2 1 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Didn't hang on</td>
<td>1 1 0 0 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Don't know</td>
<td>1 0 0 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. He was the end of it</td>
<td>1 0 0 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. The train was there</td>
<td>1 0 0 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. He wasn't careful</td>
<td>1 0 0 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. The branch was too skinny</td>
<td>0 1 0 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. He was walking on one foot</td>
<td>0 1 0 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. He had trouble climbing</td>
<td>0 1 0 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. To go on the train</td>
<td>0 1 0 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. He was startled</td>
<td>0 0 1 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. He didn't climb well</td>
<td>0 0 1 0 1</td>
<td></td>
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</tbody>
</table>

9. Why was the pig all dirty?

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<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1. He fell in coal</td>
<td>3 5 7 10 25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. He fell in dirt/mud</td>
<td>3 2 1 0 6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. He fell in the train</td>
<td>3 1 0 0 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. From the oil</td>
<td>1 0 0 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. From chocolate</td>
<td>0 1 0 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. He fell</td>
<td>0 1 0 0 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. From the smokestack</td>
<td>0 0 0 1 1</td>
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</tbody>
</table>

10. How did the pig get off the train?

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<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1. He jumped</td>
<td>8 4 4 6 22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. The train stopped</td>
<td>0 4 3 5 12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. He fell off</td>
<td>1 1 0 0 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Climbed/crawled</td>
<td>1 0 1 0 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. He was thrown</td>
<td>0 1 0 0 1</td>
<td></td>
<td></td>
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</tbody>
</table>

11. Why did he go in the water?

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<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>1. To get clean</td>
<td>7 6 7 11 31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. To cool off</td>
<td>0 3 2 0 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. To swim</td>
<td>2 2 0 0 4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. He felt like it</td>
<td>1 0 0 0 1</td>
<td></td>
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</table>
12. What did the pig do when the dog ran away with his clothes?

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<tbody>
<tr>
<td>1. Put on other (scarecrow's) clothes</td>
<td>5</td>
<td>9</td>
<td>7</td>
<td>9</td>
<td>30</td>
</tr>
<tr>
<td>2. Chased the dog</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>3. Don't know</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>4. Called the fireman</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
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</table>

13. Why did the pig put the scarecrow's clothes on?

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</thead>
<tbody>
<tr>
<td>1. Had no others so needed them</td>
<td>7</td>
<td>9</td>
<td>6</td>
<td>10</td>
<td>32</td>
</tr>
<tr>
<td>2. He did</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>3. He wanted to</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>4. He wanted to go somewhere</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>5. He was bad</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>6. So he wouldn't be cold</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7. It was a nice suit</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>8. The dog took his</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

14. Where did the pig go all dressed up in the scarecrow's clothes?

<table>
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<tr>
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<th>4</th>
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</thead>
<tbody>
<tr>
<td>1. To town</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>2. To the stage</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>3. Home</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>4. To the movies</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>5. Don't know</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>6. To a wagon with apples</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7. Chief's place</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>8. To an apartment</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>9. Somewhere</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>10. To watch a show</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>11. To get a job</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>12. City Hall</td>
<td>0</td>
<td>0</td>
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</table>

15. Why were the two pigs waiting for him?

<table>
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<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To play piano (thought he was pianist)</td>
<td>2</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td>2. Don't know</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>3. They needed a third player</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4. They weren't really</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>5. They were</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>6. They were waiting for him</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7. They thought he worked there</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>8. They didn't know he came</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>9. So they could go inside</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>10. He was late</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>11. To give him a job</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>12. They had a show for him</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
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</tr>
</tbody>
</table>
(Question #15, cont'd)

13. They went out for a break 0 1 0 0 1
14. They asked him to go in 0 1 0 0 1
15. They wanted to see him 0 1 0 0 1
16. They needed actors 0 0 1 0 1
17. He was cute 0 0 1 0 1

16. How did the pig feel when he was being introduced?

1. Scared 0 3 4 2 9
2. Embarrassed 2 3 2 0 7
3. Bewildered/confused 0 0 0 6 6
4. Good 3 2 0 0 5
5. Nervous 0 1 0 3 4
6. Sad/miserable 3 0 1 0 4
7. Mad 2 0 0 0 2
8. Silly 0 1 0 0 1
9. Popular 0 0 1 0 1
10. Lying 0 0 0 1 1

17. Why did he fall off the piano seat?

1. He was pushed 5 0 1 5 11
2. Other pig yelled at him and scared him 0 4 3 0 7
3. He was nervous 0 2 2 0 4
4. He fell/tipped over 2 0 0 0 2
5. He lost his balance 0 2 0 0 2
6. He was playing too fast 1 1 0 0 2
7. He didn't know the man was coming 1 0 0 0 1
8. He didn't want to play 1 0 0 0 1
9. He slipped 0 1 0 0 1
10. The curtain was pulled 0 1 0 0 1
11. He wasn't used to it 0 0 1 0 1
12. He was too fat 0 0 1 0 1
13. Embarrassment 0 0 0 1 1
14. He was being chased 0 0 0 1 1
15. He ran 0 0 0 1 1
16. He fainted 0 0 0 1 1
17. He was startled 0 0 0 1 1

18. Who was the man who came on stage?

1. Manager/owner 2 5 3 5 15
2. Real pianist 0 3 1 3 7
3. Don't know 4 2 0 0 6
4. M.C. 0 0 0 2 2
5. Chief 2 0 0 0 2
6. Two pigs 1 0 0 0 1
(Question #18, cont'd)

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</tr>
</thead>
<tbody>
<tr>
<td>7. Someone who lived there</td>
<td>1 0 0 0 0 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Guy in a suit</td>
<td>0 0 1 0 0 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Actor</td>
<td>0 0 1 0 0 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Man who had been outside</td>
<td>0 0 0 1 0 1</td>
<td></td>
<td></td>
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<tr>
<td>11. Judge</td>
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<td>12. Singer</td>
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19. What did he do after he fell off the seat?

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<td>4. Got hurt</td>
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<td>5. Got mad</td>
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<td>6. Made a terrible face</td>
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<td>7. Got back up</td>
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20. Why did the pig run?

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<td>2. He was being chased</td>
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<td>3. He wanted to get away (not be there)</td>
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<td>4. To avoid trouble</td>
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<td>5. He didn't want to get caught</td>
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<td>6. He wanted to go home</td>
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<td>7. The train was after him</td>
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<td>8. The other pig was going to yell</td>
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<td>9. He had to</td>
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<td>10. He did</td>
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<td>11. I don't know</td>
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<td>12. He felt foolish</td>
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<td>13. He didn't know what else to do</td>
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21. Where did the pig run to?

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<td>4. To friends</td>
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<tr>
<td>5. Don't know</td>
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<td>6. To a girl's house</td>
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<td>7. The radio station</td>
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<td>8. To a scarecrow</td>
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<td>9. To some people</td>
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<td>10. To a farm</td>
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<td>11. Wagon</td>
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22. How did the pig feel at the end of the story?  

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Appendix G

Frequencies of Statements for the Beginning and Ending of the Story for the Different Age Groups

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<td>They lived happily ever after</td>
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<td>That's the end</td>
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Appendix H

Categories of Correspondence Between Answers to Questions and Stories

Category 1. Does not mention question information in their story and answers I don't know.

Category 2. Does not mention question information in their story but gives an answer.

Category 3. Does not mention question information in their story and gives no answer.

Category 4. Mentions question information in their story and answers I don't know.

Category 5. Mentions question information in their story and their answer is a contradiction of what they said in their story.

Category 6. Mentions question information in their story and answer is different than what they said in their story but not necessarily contradictory.

Category 7. Mentions question information in their story and their answer is similar or consistent with their story.

Category 8. Mentions question information in their story but does not give any answer.

Category 9. Mentions idea of question information but not question itself and gives an answer.

Category 10. Mentions idea of question information but not question itself and answers I don't know.
REFERENCES
REFERENCES


Mandler, J.M., & DeForest, M. Is there more than one way to recall a story? *Child Development*, 1979, 50, 886-889.


