Storytelling and Story Reading: A Comparison of Effects on Children's Memory and Story Comprehension.

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Storytelling and Story Reading:
A Comparison of Effects on Children's Memory
and Story Comprehension

A thesis
presented to
the faculty of the department of Curriculum and Instruction
East Tennessee State University

In partial fulfillment
of the requirements for the degree
Master of Arts in Storytelling

by
Matthew P Gallets
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ABSTRACT

Storytelling and Story Reading:
A Comparison of the Effects on Children’s Memory
and Story Comprehension

by
Matthew Gallets

For years, storytellers have been going to schools to share stories with children. However, to date only limited research has been done on the effects of storytelling on children’s learning. This project was part of an ongoing study involving several researchers. In this portion of the project, the effects of storytelling and story reading were compared. The population studied consisted of kindergarten, first, and second grade students. Half the students were read stories aloud, the other half were told the same stories by a storyteller. Data were collected regarding students ability to recall facts they had heard, as well as students skill in using formal story elements. The students' interpretations of story meaning were also examined. Students in both the reading and storytelling groups improved on most measures. However, on some measures, notably those regarding recall ability, students in the storytelling group improved more than students in the reading group.
DEDICATION

I hereby dedicate this thesis to my mom, because she deserves it, and also because it is the last thing she would ever expect.
ACKNOWLEDGEMENTS

I wish to thank all those who helped me through the process of writing my thesis. Thank you to Dr. Rebecca Isbell, with whom my co-researchers and I have had the privilege of working for the last two years. Without her, this project would never have begun. To Delanna Reed, thank you for being with me when I took my first steps into storytelling. I would especially like to thank Ms. Chara Watson, my inseparable companion since I began working on this project. I am proud to be able to count you a friend Ms. Chara. And of course, thanks to Dr. Joseph Sobol, who somehow miraculously keeps the entire masters in storytelling program running. On top of that he still found the time to play us some great music and to give me a much needed shove every now and again.
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CHAPTER 1
INTRODUCTION

Statement of the Problem

The purpose of this study was to determine whether or not young elementary school children learn differently when they are told stories by a storyteller than when they are read stories from a picture book.

Sub-problems

1. The first sub-problem was to determine if elementary school children who are told stories remember the information they hear as well as children who are read the same stories from picture books.
2. The second sub-problem was to determine if children who are told stories learn to understand story structure better than students who are read stories.
3. The third sub-problem was to determine if children who are told stories perceive the meaning of a story differently than children who are read stories.

Hypotheses

Sub-problem 1

It was hypothesized that a group of primary school children (grades K, 1, & 2) who were told stories would remember more of the information they heard than a group of primary school children who were read the same stories.

Sub-Problem 2

It was hypothesized that children who were told stories would use more formal story elements when they retold a story than children who were read the same stories.
Sub-Problem 3

It was hypothesized that children who were told stories would tend to interpret the meaning of a story differently than children who were read the same story.

Delimitations

All data collected in this study has been gathered from selected elementary school students living in or near Johnson City, Tennessee, a town with roughly 55,000 inhabitants. The results obtained by studying this population may not be generalizable to populations in other regions which differ significantly in terms of factors such as culture, population, and socioeconomic distribution.

This study investigated the effects of only a small group of storytellers on learning. It is possible that listening to storytellers other than those involved in this project might have effects in some way different from those documented here. The study was also limited to the effects of story reading and storytelling in a school environment. In this study only a few selected measures of knowledge and learning were monitored. The areas that were examined are outlined in the section of chapter 3 entitled “Data Collection”. This study monitored the progress of students for only twelve weeks.

Definition of Terms

Storytelling: The oral presentation of a story from memory by an individual to a person or group. In this case, storytelling specifically refers to the presentation of a story without the presence of a picture book. Movements, sound effects, and the use of props often accompany the oral elements of the story presentation.

Story reading: The oral presentation of a story by an individual to a person or group from the text of a picture book. In this case the pictures printed on the pages of the book were made visible to the students at least periodically during the reading. Movements, sound effects, or the use of props may sometimes
accompany the oral elements of the story presentation. However, these elements are generally less prominent in story reading than in storytelling.

Assumptions
1. It is assumed that numerical scores assigned by knowledgeable adults are reasonable indicators of student ability. This assumption is fundamental to the structure of the American educational system. However, educational researchers have not invariably accepted the belief that numerical scores intended to reflect student performance are actually reliable indicators of children’s learning (Starch & Elliot, 1963).
2. It is assumed that even though different storytellers have different presentation styles, the effects of the story presentations in this study will be at least somewhat consistent from teller to teller. The same is assumed to be true of story reading. The reason for this assumption is that all of the story presenters involved in this study were receiving training in storytelling in the East Tennessee State University masters degree program in storytelling at the time of the treatment. We all received comparable levels of training and coaching in the formal presentational elements of storytelling. Additionally, while preparing for this project, we worked together to review literature relating to story reading and storytelling. Together the other researchers and I consulted librarians, teachers, and storytellers, from whom we received advice on how to present stories effectively. Because all the presenters received similar training, it seems likely that the presentations by all presenters were similar in style and effectiveness.

Importance of the Study
It is common for teachers to read stories to young elementary school students in class. Storybook reading is widely recommended in educational literature (Kaderavek & Justice, 2002; Rubin & Wilson, 1995; Snow, 1983). Recently the ancient art of oral storytelling has experienced a resurgence in popularity among child audiences as well as adult audiences (Sobol, 1999). In
addition to its entertainment value, some proponents of storytelling believe that storytelling may have considerable potential as an educational tool (Alna, 1999; Colon-Vila, 1997; Hamilton & Weiss, 1993; Mallan, 1997). Storytelling has been brought and continues to be brought into our nation’s schools. Sometimes, the storyteller is a volunteer from the community. Sometimes the storyteller is a professional artist. Sometimes teachers who enjoy storytelling choose to integrate storytelling into their classroom routine, believing that their students might benefit from it. Yet in spite of its popularity with some educators, as Farrell and Nissel (1982, p.2) point out “classroom storytelling has a ragtag reputation among school teachers”.

One reason for this reputation may be that much of the evidence that indicates storytelling is beneficial to children is either qualitative or anecdotal. In the current environment of research-based practices, many educators may be skeptical about allowing the use of a “new” educational tool until the effects of that tool have been clearly documented through quantitative research. It is hoped that the information gathered in this study will aid proponents of storytelling in better understanding the educational effects of their craft. It is also hoped that the information gathered in this study will aid storytellers in articulating the benefits that storytelling can offer to children. Finally, it is hoped that as a result of this study and of other studies, practitioners of storytelling will be welcome in schools not only as entertainers, but as partners in the educational process.
CHAPTER 2
REVIEW OF THE RELATED LITERATURE

Story Reading in Literature

The educational value of story reading is widely accepted, especially compared to the acceptance accorded to storytelling. But what exactly are the benefits of reading stories aloud to children? One reason adults read to children is the hope that reading exciting stories to children might in turn get children excited about learning to read books for themselves. However, storybook reading has been demonstrated to be beneficial to children in a variety of other ways as well.

Morrow (1996, p. 56) states that “several experimental studies that have sought out the effects of storybook reading as an everyday classroom routine on child development found that children in the treatment groups produce higher scores in the areas of vocabulary, story comprehension, and decoding that do the children in the groups who are not read to”. According to Snow (1983, p. 131) reading is “the most studied format for language learning”. This author explains that book reading helps children develop comprehension skills, and that it tends to promote the development of skills related to both “language and literacy simultaneously”. According to Kaderavek and Justice (2002, p. 403) “Speech-language pathologists and clinical scientists are increasingly advocating the use of shared storybook reading as an intervention context”. One of the reasons for this recommendation seems to be that “adult-child book reading provides a dynamic context that can be readily manipulated to conform to a particular child’s language abilities and intervention goals ”(p. 396).

In addition to helping children learn to decode meaning and use language, story reading is believed to have many other benefits. Galda and Cullinan (1991) found a positive correlation between shared book reading and overall school achievement. Storytelling is also believed to have social benefits. According to a publication released by the Canadian government, reading encourages children to “explore our thoughts and feelings” (Rubin & Wilson, 1995, par. 6). The same
source states that reading stories can also help children learn to have “respect for the ideas of others” and “encourage the children to reflect on different points of view”.

Though it is tempting to think of storybook reading as a single specific type of activity, sometimes shared storybook experiences can take on a variety of different forms. “By inviting children to listen, savor, chorally read, envision images, engage in creative movement, and manipulate literary language during whole group, small group, or center activities, teachers not only provide opportunities for children to develop an appreciation for literature, they also support children’s ability to think about and explore how language systems work” (Labbo & Field, 1996, p. 618). Of course, not every student is always invited to engage in each of these different activities. However, it is important to note that story reading can sometimes incorporate elements such as movement and choral participation, and that these elements can enhance the quality and value of the story experience.

Story reading clearly is not just for fun, it also helps children learn to be better users of language, helps children learn to search for meaning, has an impact on children’s overall academic performance, and may also help children to become more understanding citizens. All this only touches on the tip of an iceberg of literature about the many benefits of story reading.

**Storytelling in Literature**

Numerous scholars believe children can benefit from listening to storytelling (Alna, 1999; Ellis, 1997; Erickson; 1995; Genisio & Soundy, 1994; Isbell, Sobol, Lindauer, & Lawrence, 2004; Meyer, 1995). Kim (1999, p. 182) stated that “storytelling today is increasingly recognized as having important theoretical and practical implications”. This statement applies to several different areas. Ellis (p.21 ) explains that storytelling “is the embodiment of whole language pedagogy,” and that it provides “opportunity for cooperative learning and building social skills”. In an a earlier phase of the present study, Isbell et al. (p. 157) seemed to agree with this statement, saying that both storytelling and
story reading can help preschool aged children “produce positive gains in oral language”. It is difficult not to notice that in fact many of the benefits these authors attribute to storytelling are similar to those described by those who study story reading.

This similarity is hardly surprising. Story reading and storytelling are comparable in many ways. In many cases the same stories that others choose to read to children, storytellers might choose to tell. However, at the same time there are also important differences between the two media. Reading aloud involves spoken language, but at the same time a printed text is present. This means that during story reading both oral and written language are modeled at once. On the other hand, storytelling does not require the presence of a printed text. It may at first appear that without the presence of the printed text, storytelling may not offer as wide a variety of educational benefits as story reading.

However, as noted in the reading section Labbo and Field (1996, p. 618) imply that the story reading experience is enhanced by “inviting children to listen, savor, chorally read, envision images, engage in creative movement, and manipulate literary language”. These authors appear to be articulating a widely held belief. Baker and Greene (1977, p. xi) have described storytelling as not the presentation of a memorized script but rather as an interaction between teller and listener. They claim that “storytelling at its best is a mutual creation”. This description seems to be consistent with that of Roney (1996, p. 7), who says that storytelling can be valuable in the classroom because it is “co-creative”, and “interactive”. Those of us who worked on this study agreed with the view of storytelling described by Baker and Greene, and it was this approach to storytelling that the researchers implemented in the study treatment.

Alna (1999) says that listening to storytelling requires more imagination than listening to a story read from a picture book because, in the absence of pictures, the listeners must create their own images of the story. Based on the descriptions by the above authors, it seems like storytellers naturally tend to employ many of the techniques that experts believe the most effective story
readers should strive to incorporate. For example, Alna said that storytelling naturally promotes the engagement of the individual imagination, and also the active involvement of the listeners as partners in the creation of the story experience.

Cliatt and Shaw (1988, p. 293) assert that “the relationship of storytelling to children’s language development is well established”. It is true that there is considerable qualitative evidence that storytelling does affect language development. Many articles about storytelling and storytelling’s effects have appeared in education oriented publications. However, the great majority of these articles, including a number of those cited previously, fall into two broad types. The first category consists of practical articles, dealing with such topics as how to tell stories more effectively and how to integrate storytelling into the classroom. The second category consists of theoretical articles. These usually contain interesting and valuable anecdotal or qualitative evidence and broad claims about storytelling and storytelling’s effects.

The authors of these articles have found storytelling useful in a variety of ways. Ellis (1997, p. 21) says that “by using storytelling in the classroom, teachers can fulfill many requirements at once”. He goes on to say that storytelling is useful because it is flexible and can appeal to a variety of learning styles. A teacher of English language learners writes that in her experience storytelling can help students “develop accurate inflections, consistent expressions in the English language and facial and body expressions” (Colon-Vila, 1997, p. 58). This seems to make perfect sense. After all, “passing on traditions and cultural heritage has always occurred through the telling of stories” (Genisio & Soundy, 1994, p. 26). Erickson (1995) found that she could use storytelling to get students excited about art and the history of art. Hamilton and Weiss (1993, p. 4) use storytelling to help children “develop confidence, poise, and a love of language”.

It is interesting that many of the benefits ascribed to storytelling are as difficult to document as they are important to children’s development. It might be reasonable to try to document storytelling’s effects on “attitudes of appreciation
and respect for those unlike themselves” (Lenox, 2000, p. 97), for example, by conducting an attitude survey. However, other beneficial effects attributed to storytelling, such as its ability to help children learn to “speculate and hypothesize” (Mallan, 1996, p. 3) would be difficult if not impossible to document in a quantitative way. This does not mean that these effects of storytelling are not real or are not important. However, without some sort of quantitative documentation, it is more difficult to convince people that storytelling does have beneficial effects.

To a certain extent this problem in turn mirrors one sometimes faced by educational researchers. Those who value educational research are doubtful of storytelling because its effects have not been rigorously documented. In turn, the entire field of educational research is looked on with doubt by certain members of the scientific community. I am of course referring particularly to a faction among researchers working in fields like chemistry and physics, along with the other so called hard sciences, who feel that the results obtained by researchers in the social sciences are not valid. They feel this way because educational research almost always lacks the very rigorous degree of control over variables which is possible in the laboratory.

At present, it seems fair to say that many educators have found storytelling to be a valuable tool. The available literature on storytelling contains a wealth of information for those who are interested in learning to use storytelling, or who wish to improve their storytelling. However, when reviewing the available literature on the subject, it is hard not to notice that there are relatively little quantitative data available on the effects of storytelling. What follows is an overview of currently available research literature that is related to the effects of storytelling on school age children’s education.

Several years ago a British team conducted a study on the impact of storytelling on elementary school students’ comprehension skills and language acquisition. The results indicated that on average students who were told stories performed better on measures of story comprehension and story vocabulary knowledge than students who heard the same story read aloud (Troustle &
Hicks, 1998). However, this study was conducted using a very specific type of storytelling, which the authors refer to as the character imagery storytelling style. This method differs significantly from other, more common storytelling performance genres. Still, this study does suggest that storytelling may in fact offer some of the same benefits as story reading with regards to language and comprehension.

Another study conducted here in the United States compared the effects of three different media: story reading, storytelling, and story presented on CD-ROM (Walker, 2001). In this study students who heard the story told scored highest on measures of story comprehension. However, the researchers also found that the participants in all study groups seemed to be more interested in engaging with the computer media than with a storyteller or a story reader when given a choice of presentation media. So the results of this study appear to be favorable, but at the same time somewhat mixed. This appears to be a common thread in storytelling studies.

It is interesting that preliminary research (Walker, 2001) indicates that storytelling can produce significantly greater improvement on at least some of the measures, and in one study observers found that children appeared to be paying more attention when they were told stories. Yet when asked students later said they preferred being read to, or using a computer. The reasons for this apparent discrepancy are not clear. This could be an interesting area for future research.

Lastly, an earlier phase of the current study involving preschool children (with which this researcher was not involved) concluded that preschoolers who were told stories improved more on measures of story comprehension than children who were read stories. On the other hand, the researchers also found that students who were read stories seemed to experience more language growth than children who were told stories (Isbell et al., 2004).

From the few studies that have been conducted on this topic, it appears that storytelling may offer children benefits that are often similar to, and in some ways possibly greater than story reading. Still, there is much research to be done on storytelling’s effects. Naturally, even though some researchers believe that
storytelling offers the same or greater benefits in some areas than story reading, no one would suggest that story reading should be replaced by storytelling. For one thing, it takes a significant amount of time to prepare to tell a story, and not everyone is interested in or able to spend this kind of time on a regular basis. For many parents and teachers, story reading remains and should remain the dominant medium. However, storytelling may have some interesting and valuable potential uses.

For example, according to Kaderavek and Justice (2002, p. 398), while story reading is an effective tool for helping children learn language, it is also true that “10% of typically developing children do not like being read to”. If it could be established that these children could experience the same content as their classmates experience through story reading through the employment of storytelling and receive similar benefits, storytellers could prove quite useful in situations where a storyteller was available. And once a child became interested in stories through storytelling, that child might also become more interested in story books.

Of course, storytelling has many other potential uses besides the one mentioned above. This is just one example of the way storytelling could be used to compliment story reading as an educational tool.
CHAPTER 3

METHOD

Study Population

In the spring of 2004, data were collected from participants recruited from the East Tennessee State University Laboratory School, located on the ETSU campus in Johnson City. Fifty-four kindergarten, first, and second grade students enrolled in the study. Two students moved away from the local area during the course of the study, and the three students’ data were removed from the pool because of repeated absenteeism during story sessions. Forty-nine students completed the entire treatment. Thirty of the participants who completed the study were girls, 19 were boys. Participants were randomly assigned by grade level to either the story reading group or the storytelling group. Twenty-four of the students who completed the study were assigned to the story reading group, 25 were in the storytelling group.

In the fall of 2004 some additional data cited in this text were collected from students at Mountain View Elementary School, also located in Johnson City. Some types of data collected at this school are still in the process of being compiled and interpreted by several researchers, including myself, one other researcher who was involved in the data collection at the University School, and several other researchers. The data collected at Mountain View that are cited in this text relates to story comprehension. At Mountain View, six classrooms of students were recruited to participate: two kindergarten classrooms, two first grade classrooms, and two second grade classrooms. This gave the researchers a total study population of about 90 students. Within these six classrooms of students, there were two children whose parents chose not to enroll them in the study. Consequently, no interviews were conducted with them, and no data on these students are available. Additionally, data on eight students were excluded from the final analysis due to absenteeism. In the end, the researchers obtained usable data from 79 students at this site.
Story Selection

The stories used in the study were selected by a panel. Stories were evaluated based on the following criteria: each storybook should be likely to interest a child of the target age (approx. 6-8 yrs old), each book should have attractive illustrations, and, most importantly, the story contained in each book had to be suitable for both reading aloud and for storytelling. The selection panel was composed of four people: an elementary school teacher, a children’s librarian, a professor of early childhood education, and a professor of storytelling.

Procedures

University School

After consent had been obtained from all participants, the researchers read a story aloud to all participants in both groups to establish a baseline from which pretest data could be collected. After this story was read, individual interviews were conducted with each participant. All interviews for both groups were conducted by the same researcher both pre- and post-treatment. Students from the reading and telling groups were interviewed alternately. In each interview, students were asked to retell the story they had heard. This retelling was recorded for later playback and analysis.

Two days after the initial story reading, the treatment began. Treatment consisted of a story time, which was conducted by the researchers with the students. Story time was offered to students twice weekly for 12 weeks. Two different researchers presented stories, alternating each story. Treatment sessions always followed the same structure.

Story sessions were conducted in this way:

Before each story session began, the participants in the group were conducted by the researchers from their classrooms to the school library. The library was where story time was then held. Each story session was between 25 and 30 minutes long. At the beginning of each story session, every group was asked several questions by the story presenter. These questions were intended
to pique the students’ interest and engage critical thinking skills. Next, the story for the day was either read or told (depending on the group present) by a researcher. The students were then asked literal, inferential, and analytic follow up questions about the story they had heard. Last, the students were engaged in an activity, project, or craft that related to that day’s story. Students were then accompanied back to their classrooms.

It should be noted that the same researcher always presented the same story to both the reading group and to the telling group. Story sessions for both groups always followed the same plan. The plan differed only in that stories were read to students in the reading group and told to students in the telling group. Because the same presenter always presented the same story to both groups, it was not possible for both groups to have story time at the same time of day. However, in all cases the presentation for the telling group began within 10 minutes of the end of the presentation for the reading group. At the end of the treatment period, interviews were again conducted with each participant.

**Mountain View Elementary**

The story presentations conducted at Mountain View Elementary followed a similar format to the one used at the University School. The treatment differed, however, in that at Mountain View, story time was held in the classroom and was integrated into the normal classroom schedule. Students were not taken to the school library (as they had been at the University School).

At Mountain View, one classroom at each grade level was assigned to the story reading group, the other classroom at each grade level was assigned to the storytelling group. Because there were three researchers who were to present stories to this population, a rotation was developed to ensure that each story was presented to the children in both groups by the same researcher. Schedules were arranged so that all the students at a grade level had story time at the same time of the day.

All classrooms experienced story presentations weekly on Tuesdays and Thursdays (there were occasional exceptions to this due to field trips). However,
because presenters had to be rotated, the students in the reading group heard the same story on Tuesday that the telling group heard from the same presenter on Thursday, and vice versa. This rotation of storytellers was slightly more complicated to establish than might have been wished but seemed to offer the best overall control of variables. It also worked out to be the simplest arrangement for the teachers who were kind enough to allow us to enter their classrooms because they simply had to remember that one presenter would be coming to their classroom at the same time every Tuesday and Thursday. As at the University School, interviews were conducted with all students both pre- and post-treatment. At this site, all students in the same grade in both the reading and telling group were interviewed by the same researcher.

**Interview Protocols**

A copy of the script used by the researchers to conduct each interview can be found in the Appendix.

**Data Collected**

Many types of data were collected at the research cites. After the interviews, recordings of each student were transcribed into the SALT (Systematic Analysis of Language Texts) program. The transcripts were then analyzed by the researchers and a variety of different types of data were recorded.

In addition to the data discussed in this paper, during this project information was also compiled regarding the effects storytelling and story reading on children’s language development. These data are included in a yet to be published article about this study. This author participated in this aspect of the data collection as well as the others. However, as I possess relatively limited knowledge regarding children’s language development, I have chosen to leave the interpretation of data related to language measures to other members of the project team who are better qualified to do so.
Data relevant to the research questions stated in this thesis were of three types:

1. What children remembered: these measures include ability to remember characters from the story and to recall story episodes.

2. Data related to children’s use of formal story structure (Statement of problem, use of formal beginning and ending in the story retelling, etc.)

3. What children thought the story might mean. This information was collected by the researchers at the Mountain View site. During each interview, students were invited to tell researchers what they thought the meaning of the story they had heard might be.
CHAPTER 4
RESULTS

Use of Formal Story Elements

Beginning
As illustrated in Table 1, after the treatment period the number of students in the reading group who used a formal story introduction when retelling the story increased by roughly 22%. In the telling group, about 13% more students used a formal beginning, so over the course of the study the reading group increased about 9% more on this measure than the telling group. Note however that in the pre-treatment sampling the two groups did not score similarly on this measure, so the meaning of this result is not as clear as might be wished.

Ending
Table 1 indicates that in the reading group the number of students who used a formal ending in their retelling increased roughly 35% after the treatment. In the story telling group the increase was about 33%. This means that the two groups improved roughly the same amount, a 2% difference between groups being negligible in a sample of only 49 students total.

Time or Place Statement
In pre-treatment interviews, about 43% of students in the story reading group set their story retelling at a specific time or in a specific place. After the treatment, this figure remained the same. The story telling group displayed an increase of about 16% on this measure.

Goal or Problem Statement
It is evident in Table 1 that 43% more students in the reading group stated a goal or problem when retelling their story, after the treatment. In the storytelling group, the increase was only 28%. This represents a difference of about 15% between the increases of the groups.
Goal Attainment or Problem Resolution

In the reading group 18% more students explained how the problem in the story was solved after the treatment. The telling group actually displayed a roughly 4% decrease on this measure between pre- and post-treatment samplings. As was the case in one of the other measures, it is worth noting that in a group the size of the study population, this change represents a decrease of doubtful significance.

Conclusion

Table 1 shows that in terms of the use of formal story elements, the students in the story reading group improved more than the students in the storytelling group on three of five measures. However for a variety of reasons the meaning of these data is not as clear as we might wish it to be. For example, the students in the storytelling group used formal story elements such as a formal story beginning much more frequently than those in the reading group in the pretest. However, even with the greater gains the students in the reading group made, these students did not overtake those in telling group in terms of percent of the time some formal elements were used. Thus, while it appears that in general students in the reading group may have outperformed the telling group in this area, conclusions drawn from this data set must be considered tentative. The reading group does appear to have done better than the telling group on most measures. The performance of the telling group on the time or place statement measure may be a simple anomaly. It may be that children who are told stories are more likely to imagine a setting for the story they hear, but we will discuss that in the conclusions section. The portion of the hypothesis that states that children who are told stories will use more formal story conventions than those who were read stories does not appear to be supported by the data, and is therefore rejected.
Table 1

Formal Story Elements

<table>
<thead>
<tr>
<th>Measures by Group</th>
<th>Pretest score</th>
<th>Posttest score</th>
<th>Mean Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beginning</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading (24 students)</td>
<td>39%</td>
<td>61%</td>
<td>22%</td>
</tr>
<tr>
<td>Telling (25 students)</td>
<td>54%</td>
<td>67%</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Ending</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading (24 students)</td>
<td>22%</td>
<td>57%</td>
<td>35%</td>
</tr>
<tr>
<td>Telling (25 students)</td>
<td>25%</td>
<td>58%</td>
<td>33%</td>
</tr>
<tr>
<td><strong>Time or Place Statement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading (24 students)</td>
<td>43%</td>
<td>43%</td>
<td>0%</td>
</tr>
<tr>
<td>Telling (25 students)</td>
<td>56%</td>
<td>72%</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Goal or Problem Statement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading (24 students)</td>
<td>43%</td>
<td>86%</td>
<td>43%</td>
</tr>
<tr>
<td>Telling (25 students)</td>
<td>56%</td>
<td>48%</td>
<td>28%</td>
</tr>
<tr>
<td><strong>Attainment /Resolution</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading (24 students)</td>
<td>43%</td>
<td>61%</td>
<td>18%</td>
</tr>
<tr>
<td>Telling (25 students)</td>
<td>52%</td>
<td>48%</td>
<td>-4%</td>
</tr>
</tbody>
</table>

Story Information Remembered

Characters Remembered

Because the first story and the last story contained different numbers of characters, number of characters remembered is expressed here as a mean percentage of the total characters in the story rather than the mean number of characters recalled. These percentages should enable us to make more valid comparisons between pre and post treatment results. However, it should be remembered that the percentages that appear in the tables still only give us a rough idea of how well the groups of students performed on each measure.
As you can see in Table 2, after the treatment students in the story reading group remembered a mean of about 25% more characters than they remembered before the treatment. The increase in the storytelling group was about 36% between pre and post treatment. In other words, the storytelling group improved by a mean of about 11% more characters remembered than the students in the reading group.

**Episodes Remembered**

Each story was divided by the researchers into what they considered the main events or episodes. That each story was determined to have 8 episodes was a fortuitous coincidence. The students in the reading group remembered a mean of about 1.6 more episodes after the treatment than were remembered before the treatment. The storytelling group recalled a mean of 1.9 more episodes at the end of the 12 week period, so the telling group improved slightly more than the reading group, but only slightly.

Table 2

<table>
<thead>
<tr>
<th>Measures by Group</th>
<th>Pretest</th>
<th>Post test</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Characters Recalled</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading (24 students)</td>
<td>61%</td>
<td>86%</td>
<td>25%</td>
</tr>
<tr>
<td>Telling (25 students)</td>
<td>55%</td>
<td>91%</td>
<td>36%</td>
</tr>
<tr>
<td><strong>Episodes Recalled</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading (24 students)</td>
<td>3.9</td>
<td>5.5</td>
<td>1.6</td>
</tr>
<tr>
<td>Telling (25 students)</td>
<td>4.0</td>
<td>5.9</td>
<td>1.9</td>
</tr>
</tbody>
</table>

It is evident in Table 2 that on average, the children in the storytelling group remembered more characters and more plot episodes than the students in the story telling group. Unlike the measures of formal story elements, on the measures of story recall the two groups had comparable scores in the pretest. This allows us to draw better conclusions from this data. Table 2 clearly indicates that on these measures the children who were exposed to storytelling tended to
remember more of what they heard than children who were read the same story from a picture book. The portion of the hypothesis that states that children who are told stories will remember more of what they hear than those who are read the same story is supported by the data.

**Story Interpretation**

After each student had retold the story, the interviewer asked each student what they had learned from the story. The answers were then classified by the researchers into three categories: Literal, inferential, and analytic. Some students’ answers were multi-part, and/or included responses that fell into more than one category. When this occurred, the answers were counted in both categories. Some students who participated in the study said that the story had no meaning or were not willing to make an attempt to tell the interviewer what the meaning was. Obviously, responses of this type did not fall into any of the three categories.

**Literal**

In Table 1, we can see that before the treatment, 17 students in the reading group responded to the story interpretation question with answers that were drawn directly from the text of the story. After the treatment, only 11 students in this group gave responses that fell into this category. In the telling group, 12 students gave literal interpretations of the story before the treatment. After treatment, only 7 students in the telling group gave responses of this type.

**Inferential**

In the pretreatment, 3 students in the reading group gave responses that could be classified as inferential. After the treatment, 19 students in the reading group gave responses of this type. Three students in the telling group gave inferential responses before the treatment. After the treatment, 22 in the telling group students gave responses of this type.
Eight students in the reading group gave Analytic responses before the treatment. After treatment, 9 students from this group gave responses of this type. In the telling group, 7 Students gave analytic responses before the treatment began. After treatment, 8 students gave responses of that were classified as analytic.

Table 3

*Story Interpretation*

<table>
<thead>
<tr>
<th>Measures by Group</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Literal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading (36 students)</td>
<td>17</td>
<td>11</td>
<td>-6</td>
</tr>
<tr>
<td>Telling (39 students)</td>
<td>12</td>
<td>7</td>
<td>-5</td>
</tr>
<tr>
<td><strong>Inferential</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading (36 students)</td>
<td>3</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>Telling (39 students)</td>
<td>3</td>
<td>22</td>
<td>19</td>
</tr>
<tr>
<td><strong>Analytic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading (36 students)</td>
<td>8</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Telling (39 students)</td>
<td>7</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 3 shows that at the end of the study, more students in both groups offered interpretations that were inferential and analytic, and fewer gave literal interpretations of story meaning. So both groups appeared to improve at roughly the same rate in this area.

The portion of the hypothesis that states that children who are told stories and children who are read stories will tend to interpret the meaning of stories differently is not supported by the data, and is thus rejected.
The data gathered in this study support the conclusion that story reading and storytelling can both help children learn. Students in both the reading and storytelling groups showed improvement on nearly all measures. At the same time, it also appears that each medium helps children learn in slightly different ways.

The data indicate that children who hear stories told will tend to remember more of the information they hear. On the other hand, children who are read stories appear to be more likely to show an understanding of formal elements of story structure, and both groups of students exhibited a similar shift towards more subtle types of understanding story meaning. In fact, the most noticeable trend in the data collected is that children in both groups preformed similarly on many of the selected measures.

**On the Similarities Between the Groups**

Telling stories and reading stories seem to help children learn the same skills. This is consistent with the findings of others who have done research in this area, and it is only logical that this should be the case. The simple explanation for the similarities between the results of the two groups is that students in both groups did in fact hear the same stories from the same people.

On the other hand, the groups would probably have shown some improvement on these measures even had the students not participated in story sessions with the investigators. Because there was not a “control” group in this study, it could argued that students in the two groups showed improvement due mainly to factors outside the treatment, and that the story sessions had no effect on either group. However, as noted in the review of related literature, there is a great deal evidence that story reading does help children learn the skills we are discussing here.
The logical conclusion appears to be that story reading and storytelling both help improve children’s recall, understanding of story structure, and story comprehension. Further, it appears that that in terms of story comprehension, and possibly also for helping children understand story elements, the effects of the two media are almost identical. These findings confounded our initial expectations. This is particularly true of our expectations regarding the children’s interpretations of story meaning. Some proponents of storytelling may be discouraged by these results. However, it should be kept in mind that while in two of the three categories the effects of storytelling were different from those we had initially predicted them to be, storytelling still appears to have a positive effect on the measures we chose to study.

**On the Differences Between the Groups**

The differences between the two groups, when differences were evident, were differences in degree of degree of improvement, not in kind. There were differences, however. Children did appear to remember more of what they heard when they were exposed to storytelling than when they experienced story reading. Possible explanations for this difference between the groups do not seem to be as clear-cut as the explanations for the similarities. Why would two groups of students from the same classrooms, who heard the same stories from the same people learn differently? In order to try to explain why these differences were present, we will look not only to the data but also to how it relates to the work of several theorists. We will also seek to find insight into this question by discussing informal observations made during the story sessions.

This anecdote may help illustrate part of the reason why the two groups preformed differently. One day at the study site, a girl who was enrolled in the storytelling group passed one of the researchers in the hallway. The girl realized that the researcher was carrying a book containing the story *The Fat Cat*. Her class had just been told that story by the researcher earlier in the day, so the student became curious and asked if she could look at the pictures in the storybook. The researcher declined the request, fearing that allowing the child...
access to the storybook might affect the results of the study in some way (as a replacement, he offered to share a different storybook with the girl, one that was not being used in the study).

When this student retold *The Fat Cat* in the post-treatment interview, she paused at one point, the part of the story where the mouse looks around the inside of the cat’s stomach. The student looked at the researcher and said “I don’t know what the inside of his stomach looked like. I wanted to see the pictures so I could find out”. The student then continued the retelling.

This incident reveals one of the key differences between story reading and storytelling. Though the students in both groups heard the same story, the students in the two groups experienced the stories in different ways. As Alna (1999) explains, storytelling requires more imagination than listening to a story read from a picture book. She says this is because in the absence of pictures the listeners must create their own images of the story. If this is the case, then it would also explain why the student in the above example had difficulty retelling the portion of the story that took place inside the stomach of the fat cat. She had no mental reference from which to create an image of a stomach, and, therefore, she could not create a satisfying image of that particular scene.

This difference may also help explain why the children in the telling group tended to remember more information from the story than children in the reading group. When the children were read stories, perhaps they tended to be more passive consumers of the story images. Maybe for some of the children in the reading group the action took place on the pages of the book. When the children were told stories, on the other hand, they had to actively involve themselves in the creation of the story. Perhaps, as Alna hypothesizes, the action of the story was taking place in the imaginations of the listeners. If this were true, then because the students in the telling group created their own individual mental images of the story, each student had his/her own mental image to refer to when she/he needed to remember something from the story. Is this why the students in the storytelling group were able to recall more information? Possibly. But this hypothesis has other implications as well.
Some storytelling theorists believe that the process of using another person’s words to create your own mental images is what storytelling is all about (Baker & Greene, 1977). In this case, it would seem reasonable that the activity that takes place in the mind of the listener who hears a story told is very similar to the mental process that takes place when a literate individual reads. If this is true, and the mental process employed when listening to stories is the same as that which adults use to read, what are the implications? The experience of listening to storytelling would be in this respect more akin to the process that takes place when an adult reads, than to the mental process that takes place when an adult reads a child a picture book. So does storytelling help children develop a set of imagining skills essential to becoming a successful reader? Scholars like Malo and Bullard (2000) seem to agree with this notion. This topic could be an appropriate subject for future research.

Another possible explanation for the differences between the two groups may be that in general the students in the telling group were more attentive to the stories they heard than the students in the reading group. An effort was made to ensure that all the stories used in the study were appropriate for use with children k-2 (see chapter 3). However, some of the selected stories used more complex language or dealt with more complex ideas than others. Consequently some of the stories seemed to have more appeal for the younger students, while other stories tended to be more popular with the older students.

One day, one of the researchers was reading a story to a group of kindergarteners enrolled in the study. The researcher felt that many of the children in the audience were not very interested in the story, and that they were not understanding it well. After the story was over, the teacher took the researcher aside and told us that in her opinion were we to conduct story sessions with another group or kindergarteners in the future, that particular story should be replaced with a different one.

Earlier that day, the same researcher had presented the same story to the kindergarteners in the storytelling group. The story she told followed the same plot, contained all the same characters, and used language that was fairly similar
to that found in the printed text. It was, for all practical purposes, the same story that the reading group had heard. However, the students who heard the story told appeared interested and involved, and when questioned later that classrooms teacher said that the story was quite suitable for use with kindergarteners.

Of course, judgments about what is appropriate and what is inappropriate are somewhat subjective. All the same, this incident points to another important difference between storytelling and story reading. When reading a story to children, the reader often feels obligated to voice the words precisely as they are written. If the printed words are not connecting with a particular listener, there is often little to be done about it, other than to pick a different storybook next time.

This is less true in storytelling. Malo and Bullard (2000) say that one of the big advantages of storytelling is that storytelling can grow along with a child. A story told can be quickly adjusted to suit a specific situation. If the storyteller feels that the listeners do not understand something, the storyteller is free to include further explanation. Parts of the story the audience seems to enjoy can be expanded on. Parts that the teller feels will be of little interest to a particular group of listeners can either be made more interesting, or the teller can touch on them briefly and move on to something more exciting. In some cases a story reader may do some of the things described above, but in general it seems like most people make far fewer spontaneous changes to a story when reading from a text than when telling from memory.

This may be because, while it takes considerably more planning and preparation to learn to tell a story than it does to pick up a storybook and read it, the actual telling of a story can often be more spontaneous, simply because of the lack of fixed text. The constant adjustment of the story to suit the audience can, if the teller is skillful, result in a more attentive and interested audience. If the audience is paying more attention, it is logical that they might also remember more of what they hear.

The findings of certain researchers may seem to disagree with this assertion (Myers, 1990; Walker, 2001). Yet, in fact these studies do not
necessarily contradict this conclusion. The results of the above studies were similar to those obtained here in terms of measures of student achievement. The preference surveys these researchers used were employed later, after the sessions were over. Just because students later claimed to prefer other media to storytelling does not necessarily mean that the students did not pay careful attention during the actual telling of the stories they heard.

**Reflections on Story Meaning**

An effort was made to look at students’ interpretations of the meaning of stories in a quantitative way. To this end, responses were sorted by type, literal, inferential, etc. It was concluded that students in both groups tended to offer more inferential responses and fewer literal responses to the meaning-making question at the end of the study, what most people would consider to be an “improvement” in story comprehension.

This information is useful as far as it goes. However, the responses of individual students can also be revealing. There answers from both groups ranged from the irrelevant or obvious (when asked what they learned from the pre-treatment story, *Too Much Noise*, roughly one in eight students in both groups responded simply they had learned that there was “too much noise”) to those that showed a legitimate attempt to find an underlying meaning in the story. One example of the latter were the students who said in the post treatment interview that the story of *The Fat Cat* means “Don’t call people fat” and “say kind words”.

By coincidence, I have had the good fortune to meet the author of this storybook on several different occasions since we selected it, and these interpretations of her story would have pleased her greatly. It is not as easy to quantify, but after reading and re-reading all the responses, it was surprising to discover that about the same number of students in both groups gave what I would subjectively call extremely insightful responses to this question.

Before the treatment, most of the responses the students from both groups gave were along the lines of “I learned what sounds animals make”, or
maybe “Don’t keep animals in your house”. These are reasonable responses, but for the most part they are surface interpretations. After the treatment, multiple students responded with answers like “the story teaches to say kind words” (two students from each group gave responses like this), or from a student in the telling group “the cat eats people, and that is not good or nice”, and from the reading group “always respect your friends”. In these responses it seems as if the students understood that the story they heard had something to teach them—for example, about how people should interact. Of course, one could argue that the lesson in *The Fat Cat* was easier to grasp than the lesson in *Too Much Noise*, but this is not necessarily the case. In *Too Much Noise*, there is really only one story thread, only one main point to pick up on. Though *The Fat Cat* is a book well suited for reading to young children, the plot is more complex, and there are several possible ways to interpret the story’s meaning. Each of these possible interpretations is slightly more subtle than in *Too Much Noise* and all of them can be justified by examples from the story.

For whatever reasons, both quantitatively and especially qualitatively, students in both groups showed impressive gains in terms of story comprehension. Part of this may be due to the general maturation of the students, but part of it may also be because as the children became more used to listening to stories, their understanding of story deepened. To a certain extent this type of learning has defied and continues to defy easy quantitative evaluation, because it is possible for a student to give an answer that can be rightly classified as inferential or evaluative but still will not seem appropriate or appropriate. The response that the Fat Cat story means “don’t eat too much food” would have to be classified as such, but it could be argued that someone who interpreted the story this way does not understand what the story is really about.

**Final Thoughts**

In general the results of this study seem to mesh with the findings of researchers such as Walker, (2000), Meyers (1990), and Troustle and Hicks
(1998). As those researchers found, storytelling does offer appear to offer children certain educational benefits, many of which are similar to the benefits of reading aloud but some of which may be unique to the medium. At the same time, storytelling can not and should not be considered a replacement for reading aloud to children.

Our results do, however, support the notion that both story reading and storytelling can be used as part of an effective program for emerging readers. It is hoped that the information collected in this study will not be interpreted as a recommendation that our nation’s diligent and already overburdened educators be required to spend more of their much demanded time learning yet another new technique to use in the classroom. Rather, it is hoped that this information will be regarded as confirmation that those who enjoy storytelling, many of whom have already been sharing stories with children for years, are not simply wasting time. Rather, storytellers are engaging in an activity that is enjoyable for students, and at the same time it can contribute to the educational process. Hopefully, in light of these findings, those who chose to tell stories to children will continue to find themselves welcome in educational institutions as partners in the important task of helping children learn.
REFERENCES


APPENDIX

Language Sampling Procedure

1. Turn on recorder

2. Greet the student (make a little bit of small talk to help put the student at ease)

3. Ask the student their name, birthday, and age.

4. “I am going to say some words and I would like you to tell me what you think they mean. You might not know some of the words and that’s ok. This is not a test and you won’t be graded. Would you tell me what you think the words mean?”

5. Read words from list. If student does not respond immediately, wait at least five seconds before moving on to the next word. You may repeat the word for the child if needed.

6. Thank the child for their answers.

7. “Do you remember the story that ______ read/told you the other day? It was called:

   Too Much Noise
   The Fat Cat

8. Can you tell me that story?

9. Allow the child to take over.
   The following cues may be used if needed:
   - Can you tell me more?
   - What happened next?
   - Is there anything else you can remember?

10. Ask the child “What can this story teach us?”
VITA

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