The Effects of Interactivity, Scaffolding and Modeling on Children’s
Attention and Engagement During Read Aloud Time

An Action Research Report
By Sara Agnello and Mary Yengle
The Effects of Interactivity, Scaffolding and Modeling on Children’s Attention and Engagement During Read Aloud Time

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Sara Agnello and Mary Yengle

Saint Catherine University

St. Paul, Minnesota

Advisor: [Signature]

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Abstract

In the early academic years, read aloud time is frequently incorporated in the daily classroom schedule. For our investigation, we wondered if certain strategies (interactivity, scaffolding, and modeling enthusiasm) would help to foster deeper connections, conversation, and literary skills when used during read aloud time. We observed teacher-directed read aloud time in two Montessori environments, one with toddlers ages 2-3, and one with elementary children ages 6-9. We used various sources of data collection methods to help us track student engagement and focus, with and without the strategies implemented. The results of the study showed that more children stayed focused and engaged longer during read aloud when the teacher used scaffolding, showed enthusiasm and was interactive while reading. When these strategies were not implemented during a read aloud time, children became more easily distracted and were less inclined to make related comments or ask questions. Interactivity, enthusiasm, and scaffolding helped the children to make insightful connections within the text and to their own lives. In order to make read aloud time a more effective learning experience in the classroom, these strategies can be practiced regularly. To continue to help foster early reading skills and maintain an interest in literacy, interactivity, scaffolding and enthusiasm can be implemented during every classroom read aloud time.
We both find that read aloud time is one of the most important parts of the day for us as teachers, for the children, and for the classroom community as a whole. As much of the Montessori philosophy fosters independence in the classroom, it also places much value to creating a sense of community. After an extended work cycle period where children are working either independently or in small group lessons, read aloud time is a great way to reinstate that sense of community, gathering the children and teacher together to embrace each others’ company. It is during this time that the children can relax, get lost in a story, use their imaginations, connect to characters, and reflect. Book discussions are a vital tool for teachers, as they give us an opportunity to embed lessons and assess children informally. We can use story elements to show comparisons, model conflict/resolution, formulate predictions, as well as various other reading strategies. By informally modeling these literacy skills through read aloud time and discussion, students often begin to use these same practices in their independent reading. However, these moments are only teachable moments if the children are engaged. After reviewing literature on read aloud time engagement, we found that three strategies were suggested: 1. being interactive, 2. scaffolding learning, and 3. modeling enthusiasm. For our action research we wanted to test these strategies during read aloud time in our own classrooms. We decided to first observe read aloud time without the implementation of strategies and then observe with the strategies being used. This would allow us to compare the children’s behavior, facial expressions, movements, and verbal responses to the text in order to draw conclusions on the strategies effect on engagement during read aloud time.

Our action research took place at two Montessori schools. One houses grades pre-K (As early as age 2.5) through upper elementary (Age 12), while the other houses only
pre-K ages. Both of the schools are private for-profit Montessori schools. The children come from middle to upper class families and vary in race and ethnicity, as both schools are located in diverse areas.

The participants in our action research were the children in our classrooms. One of these classrooms was a toddler program with children ages two through three and the other an elementary classroom with children ages six through nine. Each classroom had 11 participants.

**Review of Literature**

Literacy is the basis for every child’s educational career. An important part of literacy in the classrooms is read aloud time (Coiro, 2003). Children enjoy being read to, and it is during this time that they are able to take in new information, be exposed to new vocabulary, and use their thinking skills to make sense of the story and reflect upon it. Younger aged children have more advanced listening skills than reading skills (Coiro, 2003). Until their reading skills become stronger, reading books aloud is a way to offer more complex content and material to them (Coiro, 2003; Olson, 2001). The more attentive and focused children are during read aloud time, the more meaningful the experience will be (Coiro, 2003).

According to Montessori, normalization is the willing progression of a child’s attention span (Seldin & Epstein, 2006). Montessori defines normalization through a number of behaviors exhibited by a child. Profound spontaneous concentration, attachment to reality, independence and initiative, and spontaneous self-discipline are a few of the behaviors observed during the process of normalization (Seldin & Epstein,
Currently, children are exposed to constant technology and stimuli that shorten their attention span (Ritchel, 2010). Research has shown that technology affects the brain differently in children than adults. Developing brains are less capable of staying focused on one task now that technology offers a constant stream of stimuli (Ritchel, 2010). Sustaining attention is difficult in developing brains because they are more susceptible to switching tasks (Ritchel, 2010). With a shorter attention span, it is more difficult for children to stay engaged. This poses an issue for teachers who want to incorporate read aloud time due to the many academic benefits it offers. The following sections examine various strategies teachers can use to keep children engaged and attentive during read aloud time.

**Interactivity**

According to Smolkin and Donovan (as cited in Lennox, 2013), interactive read aloud time is when “a teacher genuinely shares, not abandons, authority with the children” (p. 28). By sharing authority, children can feel welcome to participate in sharing their thoughts and ideas about the text. A teacher can encourage this by prompting children with questions. Prompting children with questions that make them think analytically about the story helps to keep them engaged (Smolkin & Donovan, 2002). Questions that allow children to relate the story to personal experiences provide a deeper connection and understanding of literature. A teacher may ask the children to compare themselves to the main character or ask them how they would feel if they were in a situation similar to read aloud time. There are five ways in which children can respond interactively to read aloud time (Sipe, 2008). These five responses include focusing on narrative elements (analytical), text to text connection (intertextual), text to
self connection (personal), delving deeper into the story world (transparent), and showing creativity through text connections (performative) (Sipe, 2008). The variety of responses allows children to engage with the reader and maximizes their interactive opportunities (Sipe, 2008).

A crucial part of interactive read aloud time is the book selection. A teacher must be selective when choosing a book to ensure that it appropriately fits the audience (Feldt, 2011; Wray & Lewis, 1997). If a book chosen for read aloud time is too advanced or not advanced enough, the teacher will lose the interest of the children. The book should have a connection and purpose in order to engage the children. Feldt (2011) suggested that teachers have a balance between the number of fiction and non-fiction books that are read aloud. Both fiction and non-fiction books give children the tools to respond in a variety of ways. Fiction books open up discussion for analytical responses while non-fiction books can trigger personal responses (Feldt, 2011).

Personal responses during read aloud time open up social dialogue between the teacher and other classmates. Social conversations based on literacy are beneficial because they reiterate concepts and increase the children’s interest in the content (Wendt, 2013). A study of a kindergarten class of 22 children found that interactive literary discussions increased the children’s full engagement time approximately seven minutes (Hoffman, 2011). Hoffman also found that the children had more lengthy responses, increasing the discussions by 45%. Hoffman noticed that children made connections in the text and drew conclusions on why characters acted in certain ways based off of what they already knew about the characters. She used follow-up questions to get children to dig deeper and build off of their peers’ responses. This increased discussion proved to
foster more meaningful responses and deeper thinking (Hoffman, 2011).

**Scaffolding**

Research exploring the benefits of read aloud time suggests that scaffolding is a key component. Wood et al. (as cited in Pentimonti & Justice, 2010) defined scaffolding as, “the process of temporarily providing support to a learner and then gradually withdrawing this support as the learner becomes capable of independence in performing tasks” (p. 241). Scaffolding exists within interactive read aloud time because a teacher who is using scaffolding must also foster and lead conversations based on the text (Pentimonti, 2010). A teacher that is using scaffolding begins with high supports and aims to lessen the supports as the children build up their literacy skills (Pentimonti, 2010). Depending on the level of literacy skills of a child, the teacher will tailor the support that is given. Recognizing themes, symbolism, and other abstract literary elements are skills that must be presented and modeled by the teacher (Pentimonti, 2010). It is important for a teacher to be prepared to scaffold during a more complex read aloud time as children will need more support initially (Pentimonti, 2010; Wray & Lewis, 1997). Open-ended discussions and connections to personal experiences help students broaden their language and thinking skills (Worthy, Chamberlain, Peterson, Sharp, & Shih, 2012). By modeling text-to-self connections, text-to-text connections, and text-to-world connections teachers scaffold by providing initial support to children developing higher level thinking skills that are crucial for their future (Morrison & Wlodarczyk, 2009).

Providing support during students’ learning process is one of the many
characteristics of a high-quality teacher. An article about literacy and attention span stated:

Research has identified several characteristic of highly effective literacy teachers, including creating positive, motivating and supportive literacy environments; offering a balance of instructional elements and experiences with good quality literature; promoting student self-regulation through excellent classroom management skills and responsiveness to student needs; and explicit modeling and teaching of reading and writing strategies. (Deault, 2011, p.29)

Creating an environment with all of these strategies will offer more positive literacy experiences to children. Using the scaffolding method to deliver the characteristics stated above will give children the tools to become more independent in using successful reading strategies (Deault, 2011).

**Modeling Enthusiasm**

Children are more likely to remain focused and interested in reading when they observe their teachers being excited and enthusiastic about reading (Kieff, 2003). Without enthusiasm and positive reinforcement in the subject of literacy the children will become uninterested. Facial expressions, tone of voice, and general excitement fuel student interest in reading. Readers should also be mindful of their eye contact with the listeners, as well as the speed and volume of their voice (Morrison & Wlodarczyk, 2009). These incorporations give the read aloud time a positive energy. Incorporating read aloud time in the classroom models teacher appreciation for literacy (Kieff, 2003).

**Implementing The Strategies**
Children age two to three are in a sensitive period for developing language and are starting to recognize and question the world around them. Children ages six to nine are in a sensitive period for reading and have entered a stage of curiosity (Montessori, 1966). They are constantly posing “how” and “why” questions (Montessori, 1966). These two age groups are significant in our study because of the connection between their sensitive periods and literacy. Current research concludes that most effective read aloud times include interactive discussion, scaffolding, and teacher enthusiasm. Each of these elements has helped not only engage children but also motivate them to respond to reading in a positive way. For our action research, we used all three of these methods with children ages two to three and six to nine in Montessori environments, to maximize learning experiences and reinforce the process of normalization.

For our action research, we decided to implement the interactive, scaffolding and modeling strategies to conduct further research and expand upon previous studies. In both of our Montessori environments, we used data sources to help us make sense of child responses, movements, and emotions during read aloud time. Our research intent was to find the affects of these strategies on children’s attention and engagement during read aloud time.

**Methodology**

During each read aloud time, we observed the children to keep track of how many seemed to be paying attention in five-minute intervals. We made note of this on our data table (see Appendix A) to easily compare the numbers within the read aloud times and across the multiple read aloud times during our study. As we observed, we also used a checklist (see Appendix B) to document the children’s behavior individually. With the
checklist, we could easily keep track of the child’s behaviors, both positive and negative. We also used an observation sheet (see Appendix C) with open-ended questions to give ourselves more qualitative data. After read aloud time, we used a scale (see Appendix D) for each of the eleven children to rate their overall behavior during read aloud time. All four of the data sources allowed us to compile data in order to find accurate results and draw important conclusions from our study. Over the six weeks, we compared these behaviors to see if there were any changes reflected between both read aloud times.

In the lower elementary Montessori classroom, read aloud time was conducted before lunch for every session. We kept the time of day consistent for the students so we could keep the data as consistent as possible. The book selection was varied by genre and length. A chapter book was used for the first two weeks of the study. For the third and fourth week, a different non-fiction text was used for each session. For the remaining two weeks, two fiction texts were used.

In the toddler Montessori classroom, read aloud time always takes place during our circle time in the late morning. Toddlers need consistent routines; around 11:30am we begin circle time, where we gather to sing songs, and then did our read aloud time. Consistency for toddlers is also important within circle. We sing and read familiar books so the children know what to expect and feel comfortable. For read aloud time we used the same few books when conducting the data collection. Those books were *Hop On Pop* by Dr. Seuss, *The Very Hungry Caterpillar* by Eric Carl and *Mr. Gumpy’s Outing* by John Burningham.
We conducted our study over a four-week time period. Twice a week we used our data sources to observe read aloud time. We asked our co-teachers to participate by conducting read aloud time so we could focus on the data collection portion of the study. Our co-teachers were taught how to incorporate the three strategies. On the first day, we observed both groups of 11 children during read aloud time conducted with no strategies. During this time, the teacher did not model enthusiasm in her voice or facial expressions. The teacher did not scaffold any learning and did not ask the children questions or stop and try to make connections. She simply read the book aloud. We observed the children’s behavior without the teacher being interactive and recorded our data using our checklist, scale, and observation forms. During the second day of the week, we observed our co-teachers reading aloud to the children, this time using the three strategies: modeling enthusiasm, scaffolding, and interactivity. As the teacher implemented these strategies, we observed the same eleven children using our data sources. The teacher changed her voice to reflect the different characters and made facial expressions to express emotions throughout the text. She also stopped at various points in the text to ask the children questions. She invited the children to make predictions, share connections that were being made, and encouraged them to share their feelings and thoughts about the story as it was being read. We continued with this pattern for the four weeks. In total, we observed four read aloud times without using the strategies, and four with the implementation of the strategies.

After six weeks of collecting data we were able to gain enough information to determine the results through analysis and comparison. We organized the data into graphs to visually show the differences between read aloud times with no strategies and read
aloud times while implementing interactivity, modeling enthusiasm, and using scaffolding.

**Analysis of Data**

After collecting our data, we compared the numbers for each child per session from our scale. We combined our data for both the toddler group and elementary group. The numbers indicated from one to three (three being the strongest) represent how engaged and focused children were during read aloud time, based upon their body language and facial expressions. We calculated two averages per child. The first showed the average score for three read aloud times conducted without using the strategies. The second average was taken from three read aloud times conducted using the strategies. We compared the two averages for each child using a bar graph.

*Figure 1. Engagement and Focus During Read Aloud Time*
The numbers on the x-axis represent each participant. The y-axis represents the average score generated from the scale. The higher the average, the more interactive and focused the child was during read aloud time. After compiling the graph, we can see that 17 out of 20 children’s participation and focus score was stronger during read aloud time with the strategies implemented.

One of our data sources used for this action research was an observation checklist. After completing the research, we compiled the number of child responses for three read aloud times without using the strategies and three read aloud times while using the strategies.

![Figure 2. Child Responses During Read Aloud Time](image)

The x-axis lists the checklist questions and the y-axis notes the number of responses. After compiling and analyzing our data, we found that more children showed
focus on the story by keeping eye contact and listening quietly while the strategies were being implemented. We found that more children shared connections made during read aloud time when the strategies were used. When teachers used scaffolding and interactivity during read aloud time, the children were more likely to respond, verbally showing the connections they made. While the strategies helped some children become more responsive, it did not decrease the number of children who needed to be redirected for disruptive behavior.

The timetable in our data collection was used to measure the number of children who were engaged and focused in five-minute intervals during read aloud time. After analyzing the data, we showed the results using a line graph.

![Figure 3. Length of Engagement Time](image-url)
We found little difference in the amount of children engaged up to ten minutes into read aloud time both with and without using the strategies. However, after ten minutes the number of children engaged during read aloud time without the strategies decreased. The number of children focused and engaged while the strategies were being implemented remained constant from five to fifteen minutes of read aloud time, even for a majority of the toddlers.

For the survey data collection tool we used qualitative information to detail different aspects of the children’s behavior that indicated engagement and focus during read aloud time. The bar graph represents the number of children who showed facial expressions related to the story.

Figure 4. Facial Expressions During Read Aloud Time

The children were recorded during all six read aloud times; three without the strategies and three while they were being implemented. After coding the qualitative data
and analyzing it in a bar graph we found that read aloud time without the strategies resulted in fewer facial expressions related to the story. While implementing the three strategies the number of children whose facial expressions related to the story greatly increased.

While observing children’s body language during read aloud time, we concluded that more children were able to sit still while the strategies were being implemented. We also noticed that the number of children who were not able to sit still decreased.

![Bar Graph: Children's Body Language During Read Aloud Time]

**Figure 5. Body Language During Read Aloud Time**

In the elementary setting, the same two children started pulling at the carpet and playing with each other’s hair during read aloud time without and with strategies implemented. In another situation in the elementary classroom the same child got up from the circle for a non-emergency situation without and with the strategies implemented. In the toddler setting, children who were moving around did things like...
change seats on the carpet, change their body position, and in one case, a child actually got up and left read aloud time. One of these children showed this restless behavior in both types of read aloud times. From this data, we can conclude that the implementation of the strategies did not necessarily affect these particular children, as they showed consistent behavior regardless of the strategy implemented.

We coded the children’s responses into three categories. Their responses either showed they were making predictions, making connections within the text elements, or making connections between the text and oneself or between the text and a real-life situation.

![Figure 6: Verbal Responses During Read Aloud Time](image)

*Figure 6. Verbal Responses During Read Aloud Time*

When the teacher used scaffolding methods and interactivity within read aloud time, more children were inclined to share their predictions and make different types of
connections. In fact, no children shared predictions during read aloud time that was conducted where the teacher did not use any strategies. Child responses occurred more frequently after a teacher modeled enthusiasm, used scaffolding, and stopped throughout the text to ask questions and invite children to use various literary and comprehension skills. The strategies proved to increase child responses during read aloud time.

Action Plan

From our action research findings we found that implementing the three strategies during read aloud time helped to keep the children more engaged and focused. When the teacher was interactive, showed enthusiasm and scaffolded questions relating to the story, more children remained seated with their eyes on the story. They children also asked more questions, and made comments and connections related to the book. Reading a book without using these strategies led to children moving around and being disruptive. In the toddler classroom there was one outlier, a child who always immediately left circle time when read aloud time began. He appeared uninterested in books and always left to find work at this time regardless of strategies the teacher used. Redirection rarely helped him gain interest. He usually came back to sit at circle only if he sat on the teacher’s lap. However, even then he did not show focus or interact.

The results of this action research project have helped us to better conduct read aloud time so it can be a more effective literary experience for the children. As teachers we are role models for the students. They imitate us and are perceptive to our behaviors. Modeling enthusiasm during read aloud time is equally important as modeling grace and
courtesy. The children sense the teacher’s interest and want to know more. It makes reading exciting. If the teacher seems uninterested in reading the children will be more likely to be distracted and not pay attention during read aloud time.

Scaffolding questions related to the story being read helps the children understand the book and continuously brings their attention back to the story. One child in the elementary classroom was always quiet during read aloud time. She would not volunteer any comments or questions but simply sat and listened. When the teacher began scaffolding questions about the book this child spoke up and became talkative. Having the teacher direct questions to the children helped them to think deeper about the story and open up about questions they may have. Read aloud time does not have to be a time when the classroom is silent and only the teacher talks. Children easily lose focus if they cannot also be involved in some way.

Interactivity makes read aloud time a community experience. As a class the children and teacher can open up and have conversations about the text. When the teacher was interactive during read aloud time the children felt comfortable enough to share their own connections to the story. The children’s facial expressions and comments related to the book because they paid more attention and were more engaged during this interaction. From now on we will not only use these strategies in our own classrooms during read aloud time but also we will share them with our colleagues to help them have more effective read aloud time experiences.

One variable that could have affected the results was the type of texts chosen. We used different kinds of texts (non-fiction, fiction, poetry, chapter book) in order to get a
variety of read aloud times in the short amount of time we had to conduct our study. For future investigation, it would be interesting to observe if students respond differently to a certain type of text when the strategies are used. Another variable that could have affected our results was the day of the week we were observing. We did not collect our data on a specific day each week. Children’s behavior can vary based on their schedules. For example, a child that has many after school activities on a Tuesday evening and does not get enough sleep will most likely be more tired and may respond less during read aloud time. Although time is not a variable in our study, another investigation that could build off our research is observing read aloud time at different times of the day. For our study, we conducted the read aloud at the same time every session. However, it would be interesting to conduct read aloud time at various times in the day to see how the children respond to the strategies. Perhaps they would be more responsive first thing in the morning when they feel fresh. Or would they be less responsive because they have just woken up? These are all factors that could be explored further.

Our data collection showed that children were more likely to share their predictions and connections when the three strategies were being used during read aloud time. This verbalization of thoughts helped show us which students were comfortable with these comprehension skills and gave us a better sense of the child’s thought process. When no strategies were used, children were more likely to sit silently during the read aloud time. Just by looking at a child who is sitting silently, we cannot judge whether the child is listening and comprehending the story, if they are confused, or if they are not listening at all. Using the strategies allows teachers to get an idea of what kinds of concepts the children grasp, and what kinds of concepts they need to focus on in the
future. It serves as an informal assessment. Any type of conversation around text impacts all children because they are able to listen to their peers’ thoughts and opinions. This can help spark new ideas and thoughts for other children who are engaged and listening. This type of discussion is so precious, especially in the early years. More importantly, being interactive with students allows them to exercise these skills that are important for the future. Making inferences, text to self connections, comparing and contrasting, and predictions are all life skills that can be fostered during read aloud time when a teacher is being interactive and using scaffolding. Read aloud time is a prime opportunity for a teacher to cultivate these skills in a comfortable and relaxed setting. Our research helps to remind us to take every opportunity to use these strategies during read aloud time, as it can be such a crucial learning experience.
References


### Appendix A
Data table for length of focus
Before/While employing methods

<table>
<thead>
<tr>
<th>Minutes of read aloud time</th>
<th>Number of children focused (Child is either making eye contact with the text or asking questions/responding to the text)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 minutes</td>
<td></td>
</tr>
<tr>
<td>10 minutes</td>
<td></td>
</tr>
<tr>
<td>15 minutes</td>
<td></td>
</tr>
<tr>
<td>20 minutes</td>
<td></td>
</tr>
<tr>
<td>25 minutes</td>
<td></td>
</tr>
<tr>
<td>30 minutes</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B
Observation Checklist

For each read aloud time, one of these charts will be used. Each time a child does one of the things listed, a box will be checked off in that row. We will have another teacher help to fill out the checklist while we are conducting read aloud time. We will compare before and while using the three strategies during read aloud time.

<table>
<thead>
<tr>
<th>Eyes are on story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quietly listening for entire duration of read aloud time</td>
</tr>
<tr>
<td>Makes connection within text or between text and real life situation</td>
</tr>
<tr>
<td>Asks question about text</td>
</tr>
<tr>
<td>Gets up from circle (excluding emergency situations)</td>
</tr>
<tr>
<td>Showing disruptive behavior</td>
</tr>
<tr>
<td>Redirection from teacher</td>
</tr>
<tr>
<td>Contributes unrelated information</td>
</tr>
</tbody>
</table>
Appendix C
Observation Form

Before/While Employing Methods

1. What are the children’s facial expressions? Do they look happy? Do they look sad? Do they look disinterested?

2. What does the children’s body language show? Are they anxious? Are they moving around? Are they relaxed?

3. Are children moving to and from circle? For what reason?

4. Have children made comments in relation to the story? Did the comments relate to one part of the story in particular?

5. Did the children’s responses and comments show they were “thinking deeper”? What kinds of connections were made? List Quotes.
Appendix D
Observation Scale

Per Individual Child

Scale

1=Weak  2= Moderate  3= Strong

1. Remains seated for a majority of the time   1       2       3
2. Facial expression shows connection with story  1       2       3
3. Asks questions related to the story   1       2       3
4. Makes a comment about a picture/plot in the story  1       2       3
5. Makes a connection or prediction about the story  1       2       3