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The Effects of Social Stories on the Problem Solving Skills of Preschoolers

An Action Research Report
By Sara Cramer
The Effects of Social Stories on the Problem Solving Skills of Preschoolers

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Abstract

This action research project examined the effects of social stories on the problem solving skills of preschoolers in a Montessori classroom. The classroom was in a private school in Arizona led by a lead Montessori trained teacher and an assistant teacher. The study spanned seven weeks and the subjects were 22 three to five year old children. Three stories were read to the children. Each story was read at circle time daily for a two week interval. Data collected included the observations of the lead teacher, observations of the assistant teacher, and one-on-one conversations with each child at the end of the study.

The data showed an increase in the abilities of the children to solve problems without the need of an adult. Future research could be conducted on the effects on female versus male preschoolers to see if the stories affect the children differently depending on their gender. Future research could also be conducted using stories about different social issues.

*Keywords*: Social Stories, preschool, Montessori, problem-solving
Often, social emotional problem-solving skills can be difficult for young children. Figuring out a solution to a problem can become frustrating for a child of this age, and they may be quick to run to an adult for help or approach the situation inappropriately by hitting or withdrawing. To help the child develop the necessary problem-solving skills that they need to be successful in social situations, the adult must not be so eager to solve the problem for the child. Instead, the adult may find ways to model the more effective ways to address specific problems. Specific problems that are typically seen in a preschool classroom are tattle telling, an inability to share friends, and not wanting to take turns.

Through conversations with other Montessori preschool teachers, the problems mentioned above were identified. These problems were seen as repeating issues that the children struggle to solve themselves. Fellow teachers who are in my graduate program cohort also referred the lack of problem solving skills that they witnessed in their preschool classrooms as well. I had the opportunity to work with a child with autism in my classroom last year. We used social stories created by her Speech Therapist to help her cope with difficult social situations and interactions. As I observed the positive effects these stories had on her, I wondered if they could have the same effects on preschool students who did not have autism.

This school year, I am working as the lead teacher in a Montessori preschool class with eleven 3-year-olds, ten 4-year-olds, and three 5-year olds. I presented three separate social stories on tattle-telling, sharing friends, and taking turns. My assistant and I observed the effects of each social story on the children for two weeks before switching to the next story. After each story had been presented and the effects had been observed, I
had one on one conversations with each child to see if the stories made any lasting impression. My hypothesis was that the children would have increased problem-solving skills at the end of the study.

**Review of Literature**

Research has shown that social problem solving skills are crucial abilities needed to be accepted by one’s peers (Mayeux & Cillessen, 2003). Developing these social skills leads to successful collaboration that will be helpful later in life during the students’ working careers. Hune and Nelson (2002) found that, “The absence of certain social skills interferes with development of friendships and positive interactions with adults” (p. 185). It is at a young age that children start to develop these necessary social skills. Children learn a great deal of social skills that are needed to be successful in life at school as they interact with the other children in their classrooms, during electives, and on the playground during recess (Stanton-Chapman, 2015). Stanton-Chapman (2015) posited that children who are accepted by their peers and are able to build lasting friendships through positive peer interactions. These lasting friendships and relationships are important for the children to be successful in the future (Stanton-Chapman, 2015).

The interactions children have with their peers, however, are not always positive and it is important that children learn at an early age how to properly handle these situations. Pawlina and Stanford (2011) support this claim by saying,

Challenges, mistakes, and problems are inherent every day in learning activities and social interactions. How children think about and respond to those difficult situations has an impact on how they see themselves as being able to shape their
own learning and on how they handle the next problem that comes their way. (p. 30).

In the preschool classroom, it is the job of the teacher to help guide children in the proper ways to handle these situations and to teach them skills they can use as they go through life. Preschool social problems are common and developmentally appropriate. It is the teacher’s job to demonstrate proper social skills and ways to resolve peer conflicts (Kennedy, 2013, p. 18). It is through the work of the teacher to find methods to demonstrate to their students how to properly engage with other students socially and how to solve problems that arise. Early intervention is the key to helping children develop social skills that can be used throughout their lives (More, 2010).

Through research over the years, it has been noticed that children enjoy contributing to the problem solving method. Giving children the opportunity to be a part of the resolution process helps them develop the skills they need to resolve more problems in the future (Arcaro-McPhee, Doppler, & Harkins, 2002, p. 19). As teachers search for ways to teach children to problem solve independently, they need to look for ways that the children can be actively involved. One way that teachers can do this with their preschool students is through social stories. Leaf et al. (2012) stated that, “Social stories are brief passages, written by a teacher, that describe a behavior to be displayed by a participant” (p. 19). These stories are teacher generated and are used to help specific children resolve real problems that they are currently facing. The language used in these stories is very specific and the reading level is set to match the level that the child is at (More, 2010, pp. 5-6). In the instance of preschoolers, lots of pictures would be used to help the children read the stories themselves.
Social stories were first created by Gray and Garand (1990) to help children with autism develop appropriate social skills to function according to social norms. Researchers have seen great success in the use of social stories to aid children with autism in the acquisition of desired social skills (Swaggart, 1995, pp. 1-16). Briody and McGarry (2005) noticed the positive effects that autistic children displayed from social stories and used them to help children without autism with the transition of beginning school. They stated that, “With the increased use of social stories within the special education population, it is reasonable to apply the practice with children in general education programs who have limited oral language and social skills” (Briody & McGarry, 2005, p. 38). The children in Briody and McGarry’s study were not on the autism spectrum. Through the use of social stories, Briody and McGarry saw the children able to transition well into the classroom environment. These researchers also noted that social stories are beneficial in helping children develop empathy, which is difficult for children because it is a high level emotion (p. 40). Social skills acquired through social stories can help children not only problem solve on their own, but also understand the other child’s point of view.

Research on the effects of social stories in academic settings have shown behavior benefits. In a study on improving lunch room behavior in elementary children using social stories, three out of five children showed improvement (Toplis & Hadwin, 2006, p. 63). Another study on three four-year-old preschool children with significant aggressive behavioral problems showed a decrease in aggression in all three children after the social stories were introduced (Benish & Bramlett, 2011, p. 8). In another study of the effects of social stories on the social skills of preschoolers, there was no change in students’
social skills (More, 2010). More (2010) studied the effects of social stories on the social skills of preschoolers. In her research, she found that the social stories had no effect on the children’s social skills. However, she stated that,

This may be due to the amount of teacher experience, lack of knowledge of the components of effective social skills and a lack of knowledge of typical child development. Although the teachers were working in a preschool setting, they did not possess college degrees in early childhood education and therefore, may have had a limited understanding of child development. (More, 2010, p. 141)

While More's (2010) study did not produce improved behavior, she believed that the lack of education that the preschool teacher’s possessed may have affected the research results.

The literature reviewed identifies two issues regarding research on social stories. First, few studies exist on the topic and researchers Benish and Bramlett (2011) suggested that more research on the topic should be explored. Benish and Bramlett were specific in saying that more research was needed on social stories and their effects on children who do not possess disabilities (p. 17). There is an abundance of research to suggest the benefits of social stories for children with autism, but not enough for children who are not on the spectrum. Second, Styles (2011) noticed that some research on social stories may be misinterpreted as successful in the events that other methods were also used during the research process. He stated that it is important for researchers to make sure that, “Social Stories are the single independent variable” (Styles, 2011, p. 424). If social stories are not the only method being used to improve social skills, then the findings cannot be solely attributed to the use of social stories.
Reviewing the literature has shown that social stories can have a positive effect on the social problem solving skills of preschool aged students. With this knowledge, I plan to use social stories in my own Montessori preschool classroom to help children learn appropriate social problem solving skills. Although there is some research on social stories for children without disabilities, I believe that this project will help further the study of these stories and how they can benefit all children. Social stories will be the only method used to help children with specific social problems in order to provide an accurate study of the effects these stories truly have on the children.

**Methodology**

To begin this project, I first researched how to create an effective social story and how it should be presented. I used the information I gathered from The National Autistic Society’s website to create three separate stories (“How to Write a Social Story,” 2016). The first story I created was on “Tattle Telling” (see Appendix A). This story showed appropriate examples of ways to solve a problem with another classmate instead of telling a teacher. The second story was on “Sharing Friends” (see Appendix B). In this story, I explained how it is okay to share our best friends with others. The last story I created was on “Taking Turns” (see Appendix C). This story discussed the Montessori principle of having one set of materials for each type of activity available for use on the shelves. The story suggested other things the children could do while they wait their turn. Each of these stories contains one sentence per page with a picture reflecting the statement being made on that page.

The first story on tattle telling was presented on Wednesday, September 7\textsuperscript{th} when all students were present. I read the story to the children at our midday circle time. The
National Autistic Society’s website suggested to present the story when the children are calm and to discuss the story once it was finished. I did just that, allowing the children to ask questions and to comment on the story that was presented. For the next week and a half, I continued to read the story every day to the children at our midday circle time. I allowed for them to comment on the story each time. During the rest of the day, my assistant and I observed the children interacting with one another. We recorded instances when the children were having a problem with one another using the observation sheets I created (see Appendix D).

After two weeks, I introduced the second story on sharing friends on Wednesday, September 21\textsuperscript{st}. This story was also presented every day at our midday circle time. The children were once again allowed to ask questions and comment on the story, just like before. My assistant and I used the same observation sheets as before to record any events where the children were struggling with the specific problem of sharing friends.

The third and final story on taking turns was presented on Wednesday, October 19\textsuperscript{th}. The school had fall break from October 7\textsuperscript{th} – 14\textsuperscript{th}, so this story was presented after the break in order to have the full two weeks to observe the children uninterrupted with this specific problem. The story was presented at midday circle time every day like the first two and the children were allowed to ask questions and make comments on the story. The same observation sheets were used by my assistant and I to record any problems the children had with taking turns.

After the third story had been shared daily for two weeks, I sat down with each student individually. I conducted one on one conversations with them using questions pertaining to the social stories (see Appendix E). I asked each of the students about the
stories to see if any of the information had been retained after the stories were presented several times. The research was concluded after I spoke with each of the students in my classroom.

**Analysis of Data**

My assistant and I both collected data using the Observation Forms (Appendix D). I kept the observation forms separate for each social story. I recorded the number of children who used specific language from each story and the number of children who were able to successfully solve a problem without an adult. Figure 1 shows the number of children who used specific language from the Tattle-Telling Story.

![Bar Chart](image)

*Was Specific Language from the Tattle-Telling Social Story Used?*

- Yes
- No

**Figure 1.**

The Tattle-Telling Social Story was the first story presented to the children. Together with my assistant, we recorded fourteen incidents that occurred during the two weeks involving Tattle-Telling. Fifty percent of the incidents showed that the children used specific language from the story. The number of children able to solve the problem without telling an adult or asking for help was 28.6%. This information is represented in Figure 2.
The second story that was presented was Sharing Friends. During the two weeks that I read this story to the children, my assistant and I observed eight conflicts between the children that involved sharing friends. In all eight of these encounters, the children successfully used language particular to the Sharing Friends story, as shown in Figure 3.

The children were more successful in solving their problems without the help of an adult with the Sharing Friends Social Story. Figure 4 shows that 60% of the problems were solved by the children.
The third and final story that was presented to the children was the Taking Turns Social Story. This problem did not occur as often as the others in our class and therefore only six incidents were observed by my assistant and I. The children used language that was specific to the Taking Turns story 83.3% of the time. This information is shown in Figure 5.

From the data gathered, only 33.3% of the children were able to solve problems on taking turns without the help of an adult. This information is presented in Figure 6.
Data Collection Tool: One on One Student Conversations

After the conclusion of the Social Stories, I recorded the one-on-one conversations that I had with each of the twenty-two students in my classroom using the One on One Student Conversations Form (Appendix E). This information is represented in Table 1 below.

Table 1.

<table>
<thead>
<tr>
<th>Response</th>
<th>Liked the Stories</th>
<th>Able to Recall Specific Language</th>
<th>Can Apply Skills to Other Situations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>21</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>9</td>
<td>14</td>
</tr>
</tbody>
</table>

From the forms, I gathered that about 95.4% of the students liked the stories. The one student who said that he did not like the stories said that they made him sad because they children were not getting along at first. The percentage of students who were able to recall specific language from one or all of the three stories was 59%. The last question that I asked students was, “Do you think you can solve other problems with the skills you learned?” Thirty-three percent of the students were able to give an example of how they
can solve a problem without an adult. It was noted that two of the twenty-two children from the study are English Language Learners and may not have understood some of the questions asked.

**Conclusion**

According to the findings, children began to use more language that was specific to the social stories as the weeks progressed. With the first social story, children used language from the social story 50% of the time. After the second social story, my assistant and I observed children using language that they learned from the social story in 75% of the recorded problems. With the final social story, we observed 83.3% of the students using specific language from the story.

The children also seemed to be able to solve their own problems as the weeks went on and they experienced more than one social story. After two weeks of observation and presenting of the first social story, the data showed that only 28.5% of the problems were solved without the help of an adult. After the second story, however, problem solving skills improved with 75% of the problems being solved by the children alone. The third story showed 33.3% of the children successfully solving the problems without asking an adult for help. This could be due to the specific problems being less complex.

From the data collected, the Social Stories were successful in helping the children learn language to use to help them problem solve. Out of all the problems recorded, the children used specific language from the stories 70% of the time. Averaging from all three of the social stories, the children were able to solve problems on their own without seeking the help of an adult 40% of the time.
Action Plan

The results of this research have shown me and my colleagues that it is important to implement many different ways to teach problem solving techniques. In Montessori, we teach the children appropriate social skills through Grace and Courtesy Lessons. These lessons on social behaviors are demonstrated to the children through role playing with another adult or a child in a group setting. For this project, I did not present any Montessori Grace and Courtesy lessons on when it is appropriate to tell a teacher, share, or take turns. The social stories were the only teaching methods used to address these specific problems. However, I believe it would be effective to use social stories as well as role-playing grace and courtesy lessons with the children, since we have observed that the children in this class did not all react the same way to the social stories.

I believe that problem solving skills are necessary. A child who has the skills to properly solve problems without the assistance of an adult is able to gain more independence. This freedom can help student learning as the children become aware that they are capable of doing things for themselves. The children will begin to do many things on their own that they would not have readily done so in the past. Independence opens up new opportunities for learning in the child.

Future research could be done on how these stories can affect boys and girls differently. From the data I gathered, there were problems that occurred between boys and problems that occurred between girls. There were also some problems that occurred between girls and boys. It would be interesting to see how these stories are interpreted differently when they are presented to each gender separately. Future research could also be done on more specific age groups. My classroom has three to five year old children in
it and, like between the genders, there were many different types of problems that occurred between children of all ages in my classroom. Future research on how social stories affect three year olds versus four or five year olds could show different results. Overall, the children seemed to enjoy the stories and I will continue to use them in my classroom with the addition of Grace and Courtesy lessons to help the children develop problem-solving skills.
References


**Tattle Telling**

Sometimes, our friends hurt our feelings.

When this happens, we want to tell the teacher what happened.

Our teachers have shown us that we can solve these problems without tattle telling.
We can talk to our friends and ask them why they did what they did. We can tell our friends that their actions or words hurt our feelings.

We can ask our friend to not do or say those things again. Sometimes, our friends will apologize.
Sometimes, they will not.

Just remember, you did your best.

There are lots of other friends in class for you to play with.
Sharing Friends

We have friends that we like to play with at school.
There are some kids in our class that we consider our best friends.

Sometimes, another friend may want to play with your best friend.
This may make you sad or angry.

Instead of feeling sad or angry, you can ask them if you can play too.
If your friends say no, this is okay because you can always play with other friends in the class instead.

The teachers want you to be friends with everyone.
Taking Turns

There are a lot of fun and exciting works in our classroom.
We may wish to do a work that another child has out.

We should not fight over the work.
Instead, we should wait our turn. Observing your friend is okay.

You could also choose a different work, such as watering the plants.
Wait until your friend has finished cleaning up the work and has put it away.

Then it will be your turn to do the work!
## Observation Log

<table>
<thead>
<tr>
<th>Date and Time Problem Occurred</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ages and Genders of Children Involved</td>
<td></td>
</tr>
<tr>
<td>Specific Problem</td>
<td></td>
</tr>
<tr>
<td>Specific Language Used</td>
<td></td>
</tr>
<tr>
<td>Was an Adult Needed? If so, what was the outcome? If not, how did the children resolve the problem?</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix E

**One on One Student Conversations**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date: _______________</td>
<td></td>
</tr>
<tr>
<td>Child’s Age: ____</td>
<td></td>
</tr>
<tr>
<td>Male ☐  Female ☐</td>
<td></td>
</tr>
<tr>
<td>How do you feel about the Social Stories? What did you like/dislike about them?</td>
<td></td>
</tr>
<tr>
<td>Do you think the Social Stories were helpful to you? What did you learn?</td>
<td></td>
</tr>
<tr>
<td>What are some ways that we can solve problems without the teachers? (looking for specific language from stories)</td>
<td></td>
</tr>
<tr>
<td>When do we need to ask a teacher for help?</td>
<td></td>
</tr>
<tr>
<td>Do you think you can solve other problems with the skills you learned? What are some examples?</td>
<td></td>
</tr>
</tbody>
</table>