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Peer Modeling vs. Teacher Modeling for the Inclusive Preschool Classroom

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Abstract

The purpose of this research was to examine the effects of peer modeling versus teacher model-

ing for students with special needs within the inclusive preschool setting. Data was collected for

three different developmental areas for students with special needs: social emotional, language,

and cognitive abilities. The data gathered determined that both peer modeling and teacher model-

ing are effective teaching strategies for students with special needs, but it is unclear whether one

strategy is more efficient than the other is. Preschool is the foundation for a child's education and

teachers need research-based strategies to implement quality instruction for students with special

needs. Therefore, teachers need to fully delve into each child's ability levels and implement the

modeling approach that would best fit the children's needs within their current classroom.

Peer Modeling vs. Teacher Modeling for the Inclusive Preschool Classroom

When most adults imagine a preschool classroom, they envision playtime, snacks, and naps (Bryant, 2018). However, teachers across the state of Iowa are changing public mindsets on what the "typical" preschool classroom looks like. It now combines all developmental children between the ages of three, four, and five years old to incorporate students with special needs on Individual Education Plans (IEPs) and general education students into inclusive preschool classrooms (Grisham-Brown, Hemmeter, Pretti-Frontczak, & Winton, 2017; Rhoad-Drogalis & Justice, 2019). This trend of inclusive preschool classrooms is on the rise, and teachers are finding it hard to meet the individual needs of each student.

In these inclusive preschool classrooms, it can be hard to give each student the individual attention he or she deserves. If we cannot hire more teachers, how can we give our students the instruction and stability they require? The answer is in our classrooms already: other students. A. S. Kennedy (2013) states, "Inclusive classrooms present a unique opportunity for children with special needs to build these skills with consistent and competent peer models" (p. 23). When we utilize general education peers as models for students with special needs, this method of instruction creates an expanding number of opportunities a child has for learning or gaining a new skill.

Moreover, this type of teaching raises yet another question: does the quality of instruction from the peer models match the quality of instruction given from the teacher? The focus of this research is to dive into the benefits of peer modeling for students with special needs and see if utilizing our general education peers brings about the same growth in development as teachers modeling a similar concept. If peer modeling for students with special needs brings about equal or better results for teaching social emotional, language, and cognitive skills, teachers would be more likely to implement this strategy in their classrooms. Teachers need reliable methods and

approaches for teaching students with special needs, and their general education peers can provide these methods within the inclusive preschool classroom. This paper will examine the results of both strategies listed above, as well as explore the advantages and disadvantages to these strategies within the inclusive preschool classroom setting.

Review of the Literature

In the realm of early childhood education, research has shown positive impacts of peer support for students with special needs (Brodzeller, Ottley, Jung, & Coogle 2018; Grisham-Brown et. al 2017; Noggle & Stites 2018). Before peer models can begin to teach other peers, early childhood programs need to have inclusive classrooms, high-quality staff, and developmentally appropriate practices for all students. When inclusive, research based practices are implemented correctly, students with special needs create a sense of community and form positive relationships with their typically developing peers (Hong, Eum, Long, Wu, & Welch, 2019).

Inclusive Classrooms

Inclusive preschool classrooms present a unique approach to teaching all types of learners within one environment. The goal of inclusive classrooms is to create a sense of belonging, build positive relationships and friendships, and grow in all developmental areas (Noggle & Stites, 2018). Teachers support this goal by creating interventions and adaptations for all learners to become valued members of the environment and community (Brodzeller et. al, 2018). The goal for inclusive programs is for students to thrive in a positive environment for peer relationships (Kennedy, 2013).

Inclusive classrooms are beneficial for all students, not only students with disabilities. These classrooms help typically developing students become accepting of all types of children

(Rhoad-Drogalis et. al, 2019). This idea of acceptance brings to existence a foundation for children to grow and accept others who are different from themselves. The relationships are key for developing social skills within inclusive preschool classrooms.

Negatives of the Inclusive Classroom

Some researchers feel inclusive classrooms could potentially have a negative effect on typically developing students. There is a potential for the quality of classroom instruction to lower for the students with special needs, time with the teacher could shorten, or children with disabilities could experience peer rejection from typically developing peers (Rhoad-Drogalis et. al, 2019). Grisham-Brown et. al explains it as, "Young children view them [children with disabilities] as someone to do things to instead of someone to do things with" (2017, p.75). This way of thinking could create a negative mindset for a child as he or she continues to grow into adulthood.

Intentionality

These troubles can be eradicated by intentionally planning instruction and creating a classroom environment with a sense of purpose and understanding for all children within the classroom. The teachers support the inclusive environment by bringing social activities and play to the forefront of intentional classroom planning (Kennedy, 2013). Preschool teachers are essential in creating successful peer interactions between all types of students. This involvement requires the teacher to plan with creativity, implement the chosen strategy, and reflect upon interactions between all children. The researcher furthers this argument by stating that teachers use thoughtful planning for how and when to target children during peer interactions, but also to scaffold the interactions to meet the needs of the child (Stanton-Chapman, 2015).

Many children within the inclusive classroom are at a higher likelihood to accept students with disabilities than students who attend classrooms with only typically developing students. A child who is a peer model to others typically shows more empathy with others even before he or she would become a peer model, and this child is more likely to make an effort to interact socially with students with a disability (Locke et. al, 2012). Research also describes how peer interactions between a typically developing student and a student with a disability can lead to positive peer relationships, friendship building, appropriate problem solving during play, and peer acceptance (Stanton-Chapman, 2015). The teacher can intentionally analyze situations, determine the best peer models, and implement planned interactions to benefit all preschool children.

Peer Models

Inclusive classrooms present an opportunity for children with special needs to develop and construct social skills with reliable peer models (Kennedy, 2013). Peer models are effective resources for teachers in the classroom. The more peer models within the classroom implementing quality instruction, the more opportunities for children with special needs to increase skills and understanding of a certain targeted topic or support (Hansen et. al, 2014). McCurdy and Cole support this concept by stating that using peers for interventions allows teachers to spend more time teaching and supporting students, which is cost and time effective (2014).

Children with special needs might not have as many opportunities to develop their social skills as compared to their typically developing peers (Kennedy, 2015). Peer play can be difficult for all children involved, but when peer models are effectively utilized, social skills are developed faster and maintained for longer periods of time (Stanton-Chapman, 2015). Hansen et. al reports that peers in an inclusive classroom are able to naturally reinforce and intervene on behaviors within the classroom (2019).

Students with Autism Spectrum Disorder

Particularly, children with autism spectrum disorder (ASD) thrive with the use of peer models in inclusive preschools. Inclusion is an appropriate teaching practice for students with ASD because of the increased social interaction opportunities with typically developing peers, friendship development, and gains in adaptive behavior skills. Therefore, inclusion can have a direct and positive impact on their social interaction skills inside and outside the classroom environment, as well as on their language development skills (Papacek, Chai, & Green, 2016; Rhoad-Drogalis et. al, 2019). The early intervention of these skills in inclusive preschool classrooms will ultimately lead to successful post-school adjustment into the real world (McCurdy et. al, 2014).

Methods

Participants

The participants in this research study attend a public, urban school in Sioux City, Iowa. The preschool classroom has twenty students between the ages of three and five years old, with all different ability and cognitive levels. There are four staff members to support students, which include one certified teacher and three instructional assistants. It is an all day, every day program, and it follows a daily schedule characteristic of preschool. This schedule includes large group activities, small group lessons, center playtime, whole group read a-louds, outside recess, and rest time.

The preschool classroom where the study took place is an inclusive environment, which serves typically developing students and students with special needs. There are twelve typically developing students and eight students with special needs. The focus and data collection pertained to the eight students with special needs, who are all different ages, abilities, and cognitive

levels. For the privacy of the participants, specific names and ages will not be released, but there are students in the classroom who learn as if they are children with autism spectrum disorder, Down syndrome, cerebral palsy, and/or have overall cognitive delays that effect their access to general education curriculum.

Procedures

Because the students with disabilities fall below their typically developing peers in the areas of social, language, and cognitive developments, the overall goal of the study is to determine the impacts of teacher modeling and peer modeling in the inclusive classroom to help bring these skills up to the level of their typically developing peers. This goal created a guiding question for the research study. Which teaching style is more effective for students with special needs within the inclusive classroom: peer modeling or teacher modeling?

The three areas of development researched are social, language, and cognitive domains. Each area of development connects to an objective within GOLD assessment, and this assessment is part of Teaching Strategies' Creative Curriculum for preschool. Each area of development in GOLD has many objectives for teachers to observe and score for each student. The teacher collects qualitative or quantitative data that correlates to a score along a developmental progression for each objective. Students can fall anywhere on the progression, and teachers can then see where students rank among typical age skills and ability levels. For this research study, one objective is within each area. The objectives are listed below:

Area of Development	Objective for Learning
Social	2c: Interacts with Peers
Language	10a: Engages in Conversations
Cognitive	14b: Engages in Sociodramatic Play

Each student with special needs was taught specific skills related to the objectives listed above. The method of skills that were taught varied between being modeled by a teacher or typically developing peer. The researcher then observed each child and gave him or her a score related to the progression for the objective. Each student with special needs was given appropriate feedback for each skill and was retaught the skill through either the peer or teacher modeling method after each interaction.

Social Development

The social skill taught to all students with special needs was gaining attention appropriately. To gain the attention of a peer or teacher, the child must do two of three things: tap the person on the shoulder, look them in the eye, and say their name. If a child does two of the three actions, the child is considered to have gained the person's attention appropriately.

Language Development

The language skill taught to all students with special needs was increase in back and forth verbal or nonverbal utterances with a peer or staff member. Each child with special needs was prompted to use their mode of communication to answer questions or comment on an activity between himself or herself and the peer or teacher.

Cognitive Development

The cognitive skill taught to all students with special needs was how to use toys and objects properly as props for pretend play. For example, a child would use a block as a toy phone or put pretend food into the oven to cook. The typically developing peer or teacher would interact with the student with special needs and build upon the child's preferred method and area of play.

Data Collection

Baseline data was collected before interventions and procedures were put into place. Each child was observed during an afternoon center time of the preschool day, where children are allowed to explore and play throughout the classroom to their leisure. The researcher observed the child's direct skill set in each of the three objectives and documented their actions, words, or ideas. The researcher then correlated the observations to a specific number along the progression for the specific objective within GOLD assessment. Procedures were then implemented from a peer model or teacher model each day over the next four and a half weeks. Data was collected three more times over the course of the study, with only the final scores being reported below.

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Findings

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Data Analysis

The data shows a direct and positive impact on the development of students with special needs within the inclusive preschool setting. The researcher wanted to see which type of modeling and coaching style would benefit the students with special needs the most: peer modeling or teacher modeling. The answer to this question is a combination of both. Table 1 shows the baseline and post scores of implementation through a peer model. Table 2 shows the baseline and post scores of implementation through a teacher model.

Table 1

Peer Modeling Results

	2c. Interacts with Peers		10a. Engages in Conversations		14b. Engages in Sociodramatic Play	
	Baseline	Post Intervention	Baseline	Post Intervention	Baseline	Post Intervention
Student 1	4	5	4	7	4	5
Student 3	4	5	2	4	3	3
Student 4	1	2	1	3	2	4
Student 5	1	2	1	2	2	2

The peer modeling students increased in 11 out of 12 categories, with total increases of 4 points for social interactions with peers, 8 points for engaging in conversations, and 3 points for engaging in sociodramatic play.

Table 2

Teacher Modeling Results

	2c. Interacts with Peers		10a. Engages in Conversations		14b. Engages in Sociodramatic Play	
	Baseline	Post Intervention	Baseline	Post Intervention	Baseline	Post Intervention
Student 2	4	4	4	7	3	5
Student 6	1	2	1	2	1	3
Student 7	1	2	1	1	1	2
Student 8	1	2	1	2	1	2

The teacher modeling students increased in 10 out of 12 categories, with total increases of 3 points for social interactions with peers, 5 points for engaging in conversations, and 6 points for engaging in sociodramatic play.

Discussion

The findings of this study determined that both peer modeling and teacher modeling have a direct impact on the development of social emotional, cognitive, and language aspects of preschool students with special needs. Peer modeling showed greater increases in GOLD scores within social emotional and language domains, while teacher modeling showed greater increases in the cognitive domain. The greatest increase in scores throughout this study were within peer modeling language domains, which determines that intentional teaching and peer modeling are effective strategies for increasing language development for students with special needs.

Limitations of the Study

This study has potential limitations. Only eight students with special needs were included in this research. In future studies, a higher number of students with special needs could potentially validate the findings of this research. Another limitation for this study is the collection and interpretation of data. While collecting data, the researcher wrote down observations and correlated the observed skill to a number within the appropriate developmental domain. There is potential bias for the scoring process wherein a researcher could interpret actions or comments made by the student incorrectly, which can result in a higher or lower score than actually displayed. Future research should include multiple researchers observing the same interactions to offset any bias or misinterpreting of data.

Further Study

Further study into peer modeling versus teacher modeling is necessary. The data collected in this study was isolated to one inclusive preschool classroom from an urban elementary school in western Iowa. It is important to explore peer modeling versus teaching modeling in deeper detail to generalize the findings to other socioeconomic areas or age levels. Further study will determine which modeling strategy works best for the different types of disabilities children

exhibit, along with which modeling strategy works best for each typically developing student. Multiple researchers across multiple integrated classrooms are necessary for determining if peer modeling or teacher modeling has a great impact on children's development and learning.

Conclusion

This individual study does not answer the question on whether one type of instruction is more effective than the other, but rather it opens a discussion for inclusive preschool teachers to determine if their teaching strategies are effective for the different types of learners within their classrooms. Many different types of disabilities are within the same environment, and teachers need to modify their teaching styles or approaches to meet the needs of all learners. Some students learn best from peers while others learn best from teachers.

Research indicates that interactions between students with special needs and typically developing students is highly important for both parties involved. Children with special needs require repeated exposure to social interactions, language skills, and cognitive skills to be able to learn and retain information. This required repetition of research-based strategies is especially true for students with ASD. Intentional planning and teaching of social skills within the inclusive preschool classroom is the most important component of this research. Teachers need to delve fully into each child's ability levels and implement the modeling approach that would best fit the child's needs within their current classroom.

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