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Teaching Social, Emotional, and Behavioral Skills in an Inclusive Preschool Classroom

by

Lynn LeCocq-Lundgren

A Thesis

Submitted to the Graduate Faculty of

St. Cloud State University

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for the Degree of

Master of Science in

Early Childhood Special Education

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Abstract

The purpose of this research was to examine the effectiveness of using the Pyramid Model to teach social/emotional skills to preschoolers in an inclusive classroom. As a result of teaching effective social/emotional skills, the incidents of challenging behaviors would decrease. The researcher used quantitative data by using the pre-intervention and post-intervention scores on the Ages and Stages Questionnaire-Social Emotional. These scores were collected in an intervention classroom and control classroom of similar make-up and design. In addition, the researcher used a teacher questionnaire completed by teachers in the intervention classroom, to obtain qualitative data regarding the perspective of the teacher and how that might influence the effectiveness of the Pyramid Model. The results of this study indicated that a number of variables affected the results of the ASQ-SE scores including the experience of the teaching staff, the teamwork within the teaching team, and the use of intentional and systematic teaching. The greater experience of the teachers in the control classroom resulted in a larger overall improvement of ASQ-SE scores. The intentional teaching and use of the Pyramid Model teaching techniques resulted in a more significant change in those students who were exhibiting challenging behaviors. Further research without the differences in teaching experience is needed to further study the effectiveness of the teaching strategies of the Pyramid Model.

Table of Contents

	Page
LIST OF TABLES	5
LIST OF FIGURES	6
Chapter	
I. INTRODUCTION AND PURPOSE.....	7
Definition of Terms	9
My Research	9
II. SOCIAL EMOTIONAL HEALTH AND SCHOOL READINESS IN EARLY CHILDHOOD	11
The Link between Communication Skills and Social/Emotional Delays.....	12
Tired vs. Pyramid Model	13
The History of Pyramid Model of Teaching	15
Social Narratives.....	16
Positive Behavioral Support	16
The Pyramid Model Implementation and Using Positive Behavioral Supports	17
Using the Ages and Stages Questionnaire—Social Emotional to Evaluate Progress	18
III. METHOD	20
Research Design	20
Subjects.....	21
Data Collection Methods	21
Data Analysis Procedures.....	22

	4
Chapter	Page
IV. RESULTS.....	23
Research Question 1	23
Research Question 2	23
Research Question 3	26
V. DISCUSSION.....	28
Interpreting the Findings	28
Limitations.....	30
Next Steps in Research.....	32
Closing Remarks.....	32
References	33
Appendix A. Letter to Teachers.....	36
Appendix B. Teacher Questionnaire.....	37

List of Tables

Table	Page
1. Intervention Classroom ASQ-SE Scores	25
2. Control Classroom ASQ-SE Scores.....	25

List of Figures

Figure	Page
1. Comparison of Levels in Pyramid Model and Tiered Models.....	14
2. Comparison of Mean ASQ-SE Scores in the Intervention and Control Classrooms.....	26

Chapter I

INTRODUCTION AND PURPOSE

The social, emotional, and behavioral development of children has long been studied by early childhood development experts and practitioners. A lack of some of these basic skills has significant impact on a preschool child's school readiness skills. A recent study found that when children exhibit early problematic behavior in the preschool classroom it has a negative impact on their school readiness skills particularly those that require attention, persistence, and motivation to learn (Bulotsky-Shearer, Fernandez, Dominguez, & Rouse. 2011). The Pyramid Model Consortium, along with the funding and partnership of Technical Assistance Center on Social Emotional Intervention (TACSEI) and The Center on the Social and Emotional Foundations for Early Learning (CSEFEL), developed a program that trains teachers to address the social emotional needs of the students by using The Pyramid Model, Coaching, Positive Behavioral Support, Behavior Intervention Plans, Social Narratives and more (S. Holzer, personal communication, July 24, 2014). It is important that this work start in early childhood:

Teaching and learning that occurs in this age range is crucial because it sets either a firm or a fragile foundation for later relationships and socialization, learning, and attitudes toward school. Early childhood learning can be seriously threatened by social, emotional impairments and conduct problems. Intervening early to remediate these difficulties may have lifelong benefits for enhancing children's later success. (Webster-Stratton, Reid, & Stoolmiller, 2008, p. 471)

The focus of my thesis will be answering the following questions:

1. Does the implementation of The Pyramid Model Program in an inclusive preschool classroom result in a reduction of challenging behaviors?
2. What are the effects on individual children's social-emotional development who participate in the study, measured by the ASQ-SE?
3. How do the reflective comments made by the teachers using the new intervention model contribute to the findings from this study?

As a result of this investigation and using the Ages and Stages Questionnaire-Social/Emotional and teacher questionnaire, I hope to answer these questions.

My interest in conducting a study on social emotional development and reducing challenging behaviors comes from my work in Early Childhood Education. I was a preschool teacher and administrator in a daycare center/preschool for 11 years. During that time, I frequently faced the challenge of preventing and addressing these behaviors within my class and the day care center. In the past 5 years, I have had the pleasure of teaching Early Childhood Special Education in an inclusive preschool classroom. Many of the children on my caseload have delays in the area of social/emotional/behavioral development. The school district in which I work has received grant monies to begin implementing The Pyramid Model program beginning September of 2014. After receiving initial training in the program, I was offered the opportunity to serve on the program's leadership board for our school district. In this leadership role, I am provided additional training and will be working with the teachers in the intervention classroom, collecting data, and monitoring the progress of the students in the two preschool classrooms. I look forward to conducting this study for my personal and professional growth as well as for the benefit of my school district.

Definition of Terms

Throughout this proposal and the thesis, I frequently refer to *challenging behaviors*. For the purpose of this research, challenging behaviors will be defined as behaviors displayed by children that go against classroom rules, disrupt others, or harm others. *Aggressive behaviors* are behaviors that are physically harmful (to self or others) or cause distress to others. A *target behavior* is the specific desired behavior that is being monitored and measured. Within my study, I will be monitoring the progress of the students in inclusive classrooms. *Inclusive classrooms* are classes that are made up of a combination of typically developing children and children with special needs. I will also refer to control classrooms. In my research, the **control classroom** will not be implementing any portion of the Pyramid Model. Unlike the control classroom, the *intervention classroom* is a preschool classroom that will be implementing The Pyramid Model.

My Research

To justify the importance of developing an effective social/emotional program and study The Pyramid Model, as well as its components, I conducted research using electronic media and the St. Cloud State University's library. I limited my search of articles to peer reviewed, research based articles. I tried to limit my sources to those that were published within the last 5 years; however, I found some research from 10 to 15 years ago that held significance today and provided useful information. I also spoke with one of The Pyramid Model trainers, Sue Holzer, to learn more about what methods will be taught and used in the intervention classrooms. Finally, using the information I gained from Ms. Holzer, I found the website for The Pyramid Model Consortium and from that site pulled out additional information. Using the sources I

found, I was able to collect a variety of information pertaining to my topic. In Chapter II, I will summarize the information I collected through my research, justify the importance of my study, and describe the elements that will be used in the intervention classrooms.

Chapter II

SOCIAL EMOTIONAL HEALTH AND SCHOOL READINESS IN EARLY CHILDHOOD

The link between social/emotional health and school readiness has been the focus of many research studies. This may have partially been because Kindergarten teachers often felt that most children did not come to school ready to learn in a classroom environment. In a survey conducted by the National Center for Early Development and Learning, 46% of Kindergarten teachers reported that more than half of the students coming into their classrooms were not ready for school. They lacked the social/emotional and self-regulatory skills necessary to function productively and learn in a Kindergarten classroom (West, Denton, & Reaney, 2000). School Readiness includes not only cognitive skills but being able to self-regulate, have social competence (interact effectively), and absence of behavior problems. Grolnick and Slowiaczek (1994) concluded that these skills are important predictors of future academic success even after factoring in family situations and cognitive abilities.

Fantuzzo, Bulotsky-Shearer, Fusco, and McWayne (2005) examined learning behaviors in children. They found that early aggressive behavior predicted lower attitudes towards school and inattentive behaviors in early childhood predicted lower competence motivation, attention, and persistence during classroom activities. Math and reading skills have been found to be important cognitive readiness skills for young children and great predictors of future academic success (Duncan et al., 2007). Therefore, it can be concluded that early aggressive behaviors and inattentive behaviors in early childhood result in lower academic success. Moreover, Kindergarten teachers reported that they are unable to teach academic skills because much of

their time was dedicated to dealing with challenging behaviors within the classroom (Webster-Stratton et al., 2008). In a study conducted by Bulotsky-Shearer et al. (2011), researchers studied the correlation between scores on a behavior rating scale to scores on school readiness scales in Head Start students ranging in age from 4.5- to 5.21-years-old. The results indicated that challenging behaviors during learning tasks at the beginning of the year predicted lower motivation, less persistence, and delayed attending skills at the end of the year. Moreover, challenging behaviors in peer interactions predicted lower attitude toward learning (Bulotsky-Shearer et al., 2011). The link between academic successes in the school aged years all begins with the social, emotional, and behavioral skills of the children during early childhood.

The Link between Communication Skills and Social/Emotional Delays

Teaching these skills can be complicated by a lack of social skills and delayed communication skills. Snyder, Prichard, Schrepferman, Patrick, and Stoolmiller (2004) found that children who had difficulty participating in social interactions often displayed high levels of negative emotions and impulsive (challenging) behavior. Children with better communication skills were more involved with peers during play and were more successful during play time within the classroom (Mendez, Fantuzzo, & Cicchetti. 2002). Entering Kindergarten requires children to work in groups, play rule based games, and look to peers as resources. Early communication skills have also been shown to affect attention skills (Hebert-Meyers, Guttentag, Swank, Smith, & Landry. 2006). In a longitudinal study, it was concluded that communication skills at age 3 predicted later social competence at age 8. The study also found that delays in communication inhibited the children's ability to 'self-talk' which is often used in social/emotional curriculums in early childhood and through elementary school (Hebert-Meyers

et al., 2006). A child's inability to communicate often resulted in frustration which then resulted in challenging behaviors. For this reason, the Pyramid Model of teaching focuses on promoting communication with both peers and adults.

Tiered vs. Pyramid Model

The Tiered and Pyramid Models have been used to illustrate the distribution of children based on needs and the many different teaching strategies that can be used to address those needs. They are similar in design (see Figure 1). They both work off of a pyramid illustration to describe the needs of all children in the class and the amount of support they require. The majority of the children fall within the first tier (universal tier) which requires the least amount of assistance and guidance. The second tier (secondary level) is for children who need help developing social skills. The third, and smallest tier (1%-2% of the students) or tertiary tier, provides intensive, individualized interventions and supports for children who have persistent challenging behaviors (Branson, & Demchak, 2011; Carter, & Pool, 2012; Krasch, & Carter, 2009). In the Pyramid Model, developed by the The Pyramid Model Consortium, the pyramid has four tiers instead of three. The difference between this model and other tiered models is that the first tier is divided into two groups; nurturing and responsive relationships and high quality supportive environments. The two other tiers are the same (The Pyramid Model Consortium, 2014).

<i>Levels of Pyramid Model</i>	<i>Levels of Tiered Model</i>	<i>Practices</i>
<i>Universal Part 1</i>	<i>First</i>	<p>Nurturing and Responsive Relationships (teacher with children/families) Teacher joins in on child’s play, engages in extended conversations with children, promotes the communication attempts of the children, providing positive descriptive feedback to encourage desired behaviors and works with families to use these practices at home and support them through the process.</p>
<i>Universal Part 2</i>	<i>First</i>	<p>High Quality Supportive Classroom Environments Development and implementation of a developmentally appropriate and balanced daily schedule and explicate teaching of that schedule. Provides adequate materials and well defined play centers. Structures transitions, teaching and encouraging a small number of specific classroom rules, routines, and behavior expectations. Provide clear directions. Ensure child engagement during daily activities by providing engaging activities and making changes when necessary.</p>
<i>Secondary</i>	<i>Second</i>	<p>Targeted Social Emotional Supports Provide individualized instruction to children who are identified as being at risk of developing challenging behaviors or having delays in social-emotional development. Teach all children to; identify and express emotions, self-regulate, solve social problems, initiate and maintain social interactions, handle disappointment and anger, and how to make/maintain friendships. Partner with families to develop the skills at home and school.</p>
<i>Tertiary</i>	<i>Third</i>	<p>Intensive Individualized Interventions Teaching team and parents convene to identify the problem behavior. Data are collected then reviewed by team to determine the antecedents, specific behavior, and possible reasons for the behavior. Individualized support strategies are developed and consistently implemented. Ongoing data are collected. Team meets again to determine effectiveness of support strategies and make new plans if necessary. Functional behavioral assessments may be needed during this process.</p>

(Hemmeter, Fox, & Snyder, 2014; The Pyramid Model Consortium, 2014)

Figure 1. Comparison of Levels in Pyramid Model and Tiered Models

The History of Pyramid Model of Teaching

The Pyramid Model Consortium is made up of Early Childhood Education Professionals from all over the United States. They worked together to develop the goals of the organization which focused on the proper implementation of the Pyramid Model. The goals are to provide early childhood educators with initial training and follow-up support, technical assistance, evaluation tools for use with the Pyramid Model, current research findings, and up to date information effective practices and procedures (The Pyramid Model Consortium, 2014). To address the need for increased social and emotional skills and decrease in challenging behaviors, The Center on the Social and Emotional Foundations for Early Learning (CSEFEL) and the Technical Assistance Center on Social Emotional Intervention (TACSEI) (federally funded programs) teamed up The Pyramid Model Consortium to develop a teaching model called The Pyramid Model for Promoting the Social Emotional Competence of Infants and Young Children. To promote continued use and fidelity of the Pyramid Model within the early childhood classrooms, the partnership for the three organizations also developed a plan for initial training and continual coaching for teachers using the Pyramid Model. The funding for this training and coaching could be obtained through grant monies provided by state agencies. Studies have found that when initial training is paired with continued coaching, implementation of new practices increases dramatically. In a study conducted in 2011, researchers found that there was “evidence of a functional relationship between training and coaching and implementation practices associated with the model” (Fox, Hemmeter, Snyder, Binder, & Clarke, 2011).

Social Narratives

At Tier 2 and, sometimes, Tier 3 students are provided additional support in developing social skills. One common strategy to teach these skills is using social narratives which “often incorporate visual representations (e.g., pictures, videos) of people and events and can be used as a social skills intervention” (Harjusola-Webb, Parke Hubbell, & Bedesem, 2012, p. 29). The popularity could be partially attributed to the ease of use. They can be as simple as drawing a succession of stick figures representing the expectations for an upcoming task or as complicated as a computer generated short story depicting a social situation with peers and all that the interaction may entail. Social stories are often used by regular education and special education teachers to teach specific skills for specific activities. A social story consists of a sequence of events and how the child could react appropriately to the components of those events (Harjusola-Webb et al., 2012). As discussed earlier, effective communication with others affects the child’s ability to work in a group, solve problems, and develop friendships, all of which help to reduce challenging behaviors (Hebert-Meyers et al., 2006).

Positive Behavioral Support

At Tier 3 the students have been identified with persistent challenging behaviors. One method used to help these students is Positive Behavioral Support (PBS). PBS is “an evidence-based method that focuses on proactive, positive strategies to prevent and address challenging behavior” (Branson & Demchak, 2011). This method also focuses on a three-tiered model of intervention. At the first level, the focus is on prevention and designing environments that are consistent and predictable. The second level focuses on providing extra support, based on the child’s needs, when the approaches used in the first tier are not sufficient. Finally, the focus of

last tier is on individualized, function-based interventions for those few students with whom the first two tiers are ineffective in eliminating challenging behaviors (Krasch & Carter, 2009). In a study on the effectiveness of PBS on addressing challenging behaviors, Blaire, Fox, and Lentini (2010) concluded that PBS was effective in reducing problem behavior and increasing engagement, was easily generalized to unique situations, and the participating staff viewed PBS as “effective, feasible, and generalizable” (Blaire et al., 2010).

The Pyramid Model Implementation and Using Positive Behavioral Supports

The first step to implementation of the Pyramid Model is training early childhood practitioners. The initial training includes time spent working as a district/agency to identify broad expectations for the program (e.g., ‘We are safe’) followed by developing specific examples in each area (e.g., ‘We walk when we are in the classroom’). The teachers then bring those rules and expectations back to students and teach them using the ‘tell,’ ‘show,’ ‘practice,’ and get ‘feedback’ approach (Carter & Pool, 2012). When used properly and combined with PBS and social narratives, this process provides the foundation of the program, meeting the needs of the students in Tier 1. The addition of social narratives and social communication modeling helps meet the needs of the children in Tier 2. For Tier 3, the first step is to collect data to determine the antecedents and consequences of the behavior along with other information regarding environment in which the behavior is exhibited. The child’s team then designs a plan that is specific for each individual child. A Functional Behavioral Assessment (FBA) is an important part of that process. The classroom staff members follow the behavior plan and record new data to review with the team and evaluate progress (Blair et al., 2010). In a recent study, the staff of a classroom that had a number of children with problematic behaviors received training

in the Pyramid Model and PBS including training on how to prevent and address the challenging behaviors. Data were collected on three children in the class, all of whom had significant, persistent challenging behaviors. After the implementation of the program, data analyses indicated staff's use of the positive behavioral supports in the classroom increased from 3.3% of observation intervals to 92.2% of intervals. For the three children on whom data were collected, the mean of the challenging behaviors during data collection intervals reduced by an average of 54%. The mean of engagement for those three children increased an average of 53% during the intervention. Based on follow-up data collected for 1 month starting 3 weeks after the intervention, teachers were able to take what they learned in training and apply it to other situations and the children were able to take what they learned and apply it to their next class (Blair et al., 2010).

Using the Ages and Stages Questionnaire—Social Emotional to Evaluate Progress

The Ages and Stages Questionnaire-Social Emotional (ASQ-SE) is the evaluation tool selected by The Pyramid Model Consortium to evaluate the progress of the students participating in the program. The ASQ-SE is a supplement to the Ages and Stages Questionnaire (ASQ) which is a general screening tool for children ages 4 months to 5 years (Squires, Bricker, Twombly & Potter, 2009). The ASQ-SE was developed with the purpose of identifying infants and young children whose emotional and behavioral development requires further evaluation (Squires, Bricker, Heo, & Twombly, 2001). The purpose of the ASQ-SE within The Pyramid Model is as an evaluation tool to measure student progress, guide teaching strategies and evaluate program effectiveness (S. Holzer, personal communication, July 24, 2014). The creators of the ASQ-SE took into consideration the variety of parents that might be completing

the questionnaire and wrote the questions at a fifth- and sixth-grade level (Squires et al., 2001). Parents or teachers completing the ASQ-SE are given three options to each question: “Most of the Time,” “Sometimes,” or “Never.” There is a fourth column that permits parents to check the item if it is of concern to them. For each question the responses are given a value of 0, 5, or 10 with an additional five points given if the fourth column is checked. The scores are computed for an overall score. A high score indicates that further evaluation is needed. A low score indicates that the child is developing social emotional skills at an age appropriate rate (Squires et al., 2001). When administering the ASQ and ASQ-SE, the practitioner looks at the child’s age and selects the appropriate questionnaire based on the child’s age. The ASQ-SE can also be used to assess progress and provide practitioners and parents valuable information regarding the social and emotional development and behavior of their student/child.

Chapter III

METHOD

The rate of learning is the fastest during early childhood, the skills obtained or delayed in early childhood stay with children throughout their school aged years and delays in social, emotional, or behavioral development inhibit all other aspects of school readiness. Therefore, the importance of providing teaching social, emotional and behavioral skills during the early childhood years is crucial for the later academic success.

Research Design

In my research, I intend to answer the questions:

1. Does the implementation of The Pyramid Model Program in an inclusive preschool classroom result in a reduction of challenging behaviors?
2. What are the effects on individual children's social-emotional development who participate in the study, measured by the ASQ-SE?
3. How do the reflective comments made by the teachers using the new intervention model contribute to the findings from this study?

The research design used in this study is a combination of quantitative and qualitative research on two different inclusive preschool classrooms. One of these classrooms is an intervention classroom with full implementation of The Pyramid Model while the other is a control classroom in which The Pyramid Model is not used. The intervention classroom is a school readiness classroom with fifteen students. The classroom is a fully inclusive classroom with seven of the 15 students receiving special education services. The children in this classroom are from families from all economic backgrounds. The control classroom looks much like the

intervention classroom with thirteen preschool students including six that receive special education services from homes with various economic resources.

Subjects

The general education students in each of these classrooms are chosen randomly by the school readiness office staff. The students receiving special education services in both classrooms are placed based by their IEP teams. To be eligible for a fully inclusive classroom, students must meet minimum functional and behavioral requirements. Therefore, the study sample does not include students with emotional/behavioral disorders or those with severe or profound disabilities. Both classes are part of the Brainerd School district but in different buildings. The intervention classroom is fully implementing the Pyramid Model. The control classroom is not using the Pyramid Model.

Both classes are team taught by an Early Childhood Special Education (ECSE) teacher and School Readiness teacher. In the control classroom, the teachers have a combined teaching experience of 25 years all within preschool classrooms. In the intervention classroom, the teachers have combined teaching experience of 4 years. The school readiness teacher in the intervention classroom was previously a parent educator while the ECSE teacher graduated with her teaching license 3 years ago and has been teaching in that classroom since receiving her license.

Data Collection Methods

Data were collected in October and April of the 2014-2015 school year. At those times, the teachers in each of classrooms completed the ASQ-SE on all of the students. The teacher questionnaire was distributed to both teachers within the intervention classroom in April, 2015.

One questionnaire was returned within 1 week of distribution. The second questionnaire was not returned due to termination of the teacher's employment.

Data Analysis Procedures

The results of the October and April ASQ-SE scores were averaged out for each class to determine the mean for each data collection date for each classroom. The change in the mean scores from October to April in each class were compared to the other class paying particular attention to differences, if any, between the intervention classroom and the control classroom. The number of children with ASQ-SE scores above the cutoff of 70 in October was compared to the number of children with scores above the cutoff in April. The scores on particular test questions on the ASQ-SE were examined to determine if any specific area of development showed more or less change than the others. This information was used to develop tables and charts to illustrate the effects of The Pyramid Model Consortium program on the intervention classroom compared the results of the control classroom and the differences between scores in October vs. scores in April. Finally, the results of a teacher questionnaire were examined to determine how teacher perceptions contribute to the findings of this study.

Chapter IV

RESULTS

Research Question 1

Does the implementation of The Pyramid Model Program in an inclusive preschool classroom result in a reduction of challenging behaviors? To answer this question, it was the intention to collect and review Behavior Intervention Reports (BIRs) that are collected in intervention classrooms. However, due to technical difficulties with the reporting form, misunderstandings regarding the process and staffing challenges, the data were not collected until the last 2 months of the research time frame. Therefore, the data collected are not adequate to answer the above question. However, the ECSE teacher in the intervention classroom reported that, once implemented, the process for addressing challenging behaviors was very helpful. With an initial occurrence rate of 80% and final occurrence rate of 5%, the targeted challenging behavior was nearly eliminated after implementing the individualized behavior planning process.

Research Question 2

What are the effects on individual children's social-emotional development who participate in the study, measured by the ASQ-SE? To answer the second question in this study, the ASQ-SE data collected in the control classroom and intervention classroom were examined. As Table 1 illustrates, there was an, overall, reduction in ASQ-SE scores of 4.2 points in the intervention classroom. The average change in scores was calculated by taking the change of each student's score, adding them together, then, dividing that number by the number of students in the class. Of the 13 students, seven showed an improvement (lower score) from October 2014

to April 2015. However, it should also be noted that four students actually received a higher score in April, 2015 than in October, 2014. In Table 2, results of the ASQ-SE scores in the control classroom show a larger improvement with an average reduction in ASQ-SE scores of 7.7. Of the 14 students, 8 showed an improvement from October, 2014 to April, 2015 and only two scored higher in April, 2015 than in October, 2014. A paired samples t-test showed that the change in scores in the intervention classroom ($N=13$, $M=4.2$, $SD=1.64$) and the change in scores in the control classroom ($N=14$, $M=7.5$, $SD=1.05$) showed a measureable difference ($t=.64$, $p<.05$) with the control classroom having better scores. When using the ASQ-SE, a cutoff score of 70 is used to identify those children who are demonstrating social/emotional skills that are significantly below what is expected for a child his/her age. That score was also used to guide instruction in the intervention classroom. The ASQ-SE scores were not shared with the control classroom teacher, therefore, no additional services were provided to children who fell above the cutoff in the control classroom. The number of students in the intervention classroom scoring above the cutoff score went from three in October, 2014 to two in April, 2015. However, in the control classroom the number of students scoring above the cutoff score went up from one in October to two in April.

Table 1

Intervention Classroom ASQ-SE Scores

Child ID Number	1	2	3	4	5	6	7	8	9	10	11	12	13	Average Change
ASQ-SE Score October 2014	5	150	10	60	10	60	40	30	80	80	20	15	10	43
ASQ-SE Score April 2015	5	135	20	25	0	35	10	55	120	70	25	15	0	39
Change in ASQ- SE scores	0	-15	10	-35	-10	-25	-30	25	40	-10	5	0	-10	-4.2

Table 2

Control Classroom ASQ-SE Scores

Child ID Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Average change
ASQ-SE Score October 2014	10	10	10	0	0	10	65	20	15	55	35	60	105	20	31
ASQ-SE Score April 2015	15	0	0	0	0	0	25	0	0	40	35	75	105	15	23
Change in ASQ-SE scores	5	-10	-10	0	0	-10	-40	-20	-15	-15	0	15	0	-5	-7.5

In Figure 2, the mean or average scores for each class were compared. The mean score was calculated by adding the scores of all the students for each data collection period then dividing them by the number of students for which the data were collected. This was done individually for both the intervention classroom and the control classroom. Data show that, across both scoring dates, the intervention classroom had higher mean scores (44 in October and 40 in April) than that of the control classroom (28 in October and 23 in April).

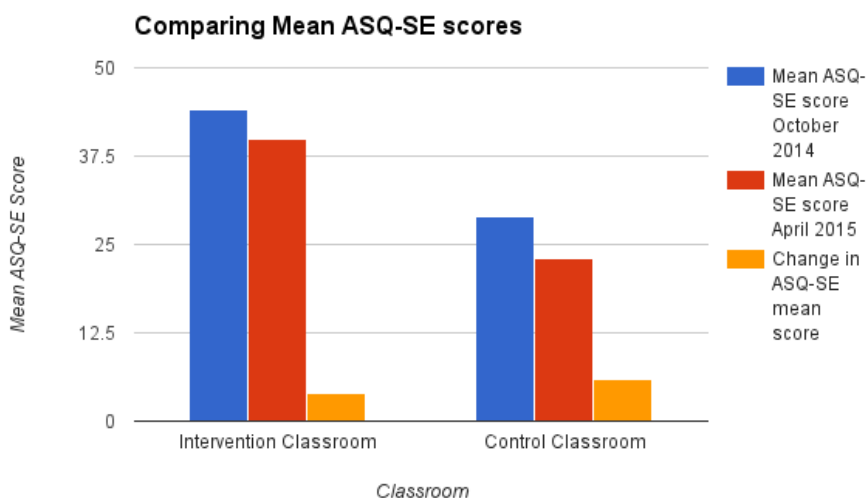


Figure 2. Comparison of Mean ASQ-SE Scores in the Intervention and Control Classrooms

Research Question 3

How do the reflective comments made by the teachers using the new intervention model contribute to the findings from this study? The two teachers in the intervention classroom were each given a seven-question questionnaire on which they were asked to rate their impressions of the Pyramid Model and the trainings and support provided with the implementation process. The questionnaire was returned by one of the teachers. When asked her overall impression of the Pyramid Model she responded, “It is a helpful set of tools for teaching social-emotional skills in a purposeful, systematic way; and encourages consistency across sites.” Her overall impression of the training was, “The training has been very good but definitely overwhelming.” When asked to rate her level of excitement regarding the implementation of the Pyramid Model, she chose ‘somewhat excited’ and commented that it was “lot of work, but WORTH it.” Regarding the trainings, she indicated that they were ‘very useful (I had many takeaway ideas).’ Regarding the support she received, the teacher found that the coaches were ‘very supportive’ and the

administrators/supervisors were ‘somewhat supportive.’ She stated that the “TPOT coach was helpful, but the trainer didn’t come until the end of the year. Needed more support for data pieces.” When asked to describe how she anticipated using the Pyramid Model to teach and support social/emotional development of her students, the teacher indicated that she will ‘Continue and expand on current use.’ The other teacher did not return the questionnaire. She was dismissed from her position before the end of this study.

Chapter V

DISCUSSION

Interpreting the Findings

As a result of my research, I hoped to answer the following questions:

1. Does the implementation of The Pyramid Model Program in an inclusive preschool classroom result in a reduction of challenging behaviors?
2. What are the effects on individual children's social-emotional development who participate in the study, measured by the ASQ-SE?
3. How do the reflective comments made by the teachers using the new intervention model contribute to the findings from this study?

The first question was not adequately answered as a result of this research. The data were collected too late in the research project to be viable. According to the ECSE teacher in the classroom and data collection, the process was successful in reducing a specific challenging behavior in a specific student.

Looking at the ASQ-SE scores of the students in both classrooms, a few conclusions can be drawn. First, based on the reduction in ASQ-SE scores in both classrooms, it would seem that quality preschool programming has a positive effect on most children's social/emotional/behavioral development regardless of whether or not the Pyramid Model is being used. In the control classroom, 8 of the 14 students showed an improvement in their score, four remained the same, and two fell further below what is typical for a child their age. In the intervention classroom, 7 of the 13 students showed an improvement in their score, two remained the same, and four fell further below what is typical for a child their age. Looking at individual

scores and using 70 as a cut off score for those students who needed Tier 2 and Tier 3 interventions, those students demonstrated more improvement in the intervention classroom than in the control classroom. It should be noted that the control classroom did not use a systematic approach to addressing those students who needed additional support. The teachers in the intervention classroom used initial ASQ-SE data to determine which students needed additional support then planned programming accordingly. Furthermore, those teachers received coaching to guide them in the use of the Pyramid Model and to help them problem solve difficult situations. A reduction in challenging behaviors directly results in lower ASQ-SE score. As a result, the number of students receiving scores above the cutoff decreased from three to two while the number of students scoring above the cutoff in the control classroom increased from one to two. Similarly, a study conducted in 2010 found that the implementation of individual behavior plans resulted in an increase in student engagement and a decrease in challenging behaviors in the classroom (Blair et al., 2010).

Finally, when comparing the mean of overall improvement of ASQ-SE scores, the control classroom reported more improvement than the intervention classroom. On average, students in the control classroom improved by 7.7 points while those in the intervention classroom improved an average of 4.2 points. Because challenging behaviors increase ASQ-SE scores, it can be concluded that challenging behaviors have decreased in both classrooms. Previous studies have found the opposite result. In a recent study, researchers examined the impact of creating a positive environment and individualizing strategies to address problematic behavior on the overall quantity of challenging behavior occurrences. The results of this study concluded that a

positive environment and intentional teaching of social/emotional skills resulted in less occurrences of challenging behaviors (Fox et al., 2011).

The teacher questionnaire was completed by one of the teachers in the intervention classroom. Overall, her impression of the Pyramid Model was positive. She reported that, although it was a lot of work, it was worth it. She reported that, although the help with the individual behavior plan came late in the process, it worked. Her teaching team saw a reduction in the challenging behavior that was addressed during this process. The teacher wrote that she felt like the trainings and coaching were both worthwhile. The other teacher in the intervention classroom teacher did not have the opportunity to complete the questionnaire due to her dismissal from her teacher position before the end of the research period.

Limitations

This research had a few expected and unexpected variables that ultimately affected the validity of the results. An expected variable was the teaching experience of the teachers in the two classrooms. In the control classroom the two teachers had the combined preschool teaching experience of 25 years. In contrast, in the control classroom the two teachers had the combined preschool teaching experience of 4 years. Some may argue that those teachers without a number of years of teaching are more open to change and easier to coach. Based on the results of this study, the scores on ASQ-SE questionnaires indicate that the teaching experience of the teachers resulted in a greater mean of improvement in social/emotional/behavioral development of the preschool students.

Staffing issues and personal events were unexpected but inevitably impacted the results of this research. In the intervention classroom, the ECSE teacher unexpectedly adopted a child

in December and was gone on maternity leave for the months of December, January, and February. Upon her return, she found that there were many staffing and classroom management issues. The tension of the staff had a negative impact on the overall classroom environment which is a Tier 1, foundational, expectation when using the Pyramid Model. The problems in the classroom ultimately lead to the dismissal of the school readiness teacher in the intervention classroom. This immediately affected the data collection process for this study. Only one of the two teacher questionnaires was returned. Therefore, only one teacher's input was available to report.

Looking at the make-up of each of the classrooms, despite identical enrollment processes, the students in the intervention classroom started the year with higher scores, less skills, than those in the control classroom. A paired samples t-test showed that the difference in beginning scores in the intervention classroom ($N=13$, $M=44$, $SD=3.22$) and the beginning scores in the control classroom ($N=14$, $M=30$, $SD=2.46$) showed a measureable difference ($t=.33$ $p<.05$).

Finally, the increase in scores on the ASQ-SE questionnaires may be interpreted to mean that there was a decrease in skills. However, because the research time frame was longer than 6 months and the questionnaire changes every 6 months, the expectations for the students were higher in April than in October. The accurate conclusion to be made is that the students receiving higher scores in April fell further behind what is expected for a child their age. It should also be noted that more than 40% of the students in each of the classes had special needs. For students with special needs the rate of skill acquisition is generally slower than those students without developmental delays.

Next Steps in Research

A similar study conducted with a larger sample size would be beneficial. A larger sample size would decrease the impact of unavoidable variables. It also became evident in the teacher questionnaire that the timeliness and quality of the training and coaching was critical to the fidelity and success of the implementation of the Pyramid Model. For that reason, research on the coaching and training process would be helpful. Finally, the use of accurate BIR data would be useful in determining if the Pyramid Model resulted in a reduction of challenging behaviors.

Closing Remarks

As a teacher who was recently introduced to the Pyramid Model of teaching, my excitement for the possibilities of what is to come continues. We have seen great changes in the intervention classroom, such as, intentional teaching of behavior expectations, emotions, and problem solving skills. The instructional improvements in the classroom in addition to the positive remarks on the teacher questionnaire that we received are encouraging. As a result of this research project, I, and other members of the Pyramid Model leadership team, have discovered areas that need improvement. For example, we will need to increase our support to new Pyramid Model teachers and provide better training on how to use behavior intervention reports and individualized behavior plans. The Brainerd School District and Minnesota Department of Education are fully invested in the implementation of the Pyramid Model and look forward to working together on full implementation over the next 5 years.

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Appendix A

Letter to Teachers

Dear Participant,

I invite you to participate in a research study entitled: Effectiveness of the Pyramid Model in School Readiness classroom. I am currently enrolled in the Early Childhood Special Education Program at St. Cloud State University, St. Cloud, MN and am in the process of writing my Master's Thesis. The purpose of the research is to determine: the effectiveness of the Pyramid Model at teaching social/emotional skills and reducing challenging in preschool classrooms.

The enclosed questionnaire has been designed to collect information on the opinion of the teachers regarding the use of Pyramid Model and training provided to staff.

Your participation in this research project is completely voluntary. You may decline altogether, or leave blank any questions you do not wish to answer. There are no known risks to participation beyond those encountered in everyday life. Your responses will remain confidential and anonymous. Data from this research will be kept under lock and key and reported only as a collective combined total. No one other than the researcher will know your individual answers to this questionnaire.

If you agree to participate in this project, please answer the questions on the questionnaire as best you can. It should take approximately 30 minutes to complete. Please return the questionnaire to Lynn Lundgren as soon as possible via inter-school mail.

If you have any questions about this project, feel free to contact *Lynn Lundgren at 568-6641 or llundgren@tds.net*. Information on the rights of human subjects in research is available through the SCSU website under Institutional Review Board.

Thank you for your assistance in this important endeavor.

Sincerely yours,

Lynn Lundgren

Appendix B

Teacher Questionnaire

The answers provided on this questionnaire will be used to examine the perceived effectiveness of the Pyramid Model and the TACSEI training program by Brainerd District Early Childhood Education Teachers.

Please answer each question to best of your ability. If you choose not to answer a question please leave it blank. If the question does not pertain to you please mark N/A.

1. What is your overall impression of the Pyramid Model?

2. What is your overall impression of the training you have received regarding the implementation of the Pyramid Model?

Circle the answer that best describes how you feel.

3. How would you rate your level of excitement regarding implementation of the Pyramid Model in your classroom?

Very Excited Somewhat Excited Somewhat Disinterested Very Disinterested

Comments:

4. How would you rate the usefulness of the trainings?

Very Useful (I had many takeaway ideas)

Somewhat Useful (I had 1 or 2 ideas to try)

Not very useful (some good information but no takeaway ideas)

A waste of my time

Comments:

5. How would you rate the support you have received through internal and external coaches?

Very Supportive

Somewhat Supportive

Could be better

Not Supportive

Comments:

6. How would you rate the support you have received from administrators/supervisors?

Very Supportive

Somewhat Supportive

Could be better

Not Supportive

Comments:

7. How would you describe how you anticipate using the Pyramid Model to teach/support the Social/Emotional Development of your students in the future?

Continue and expand on current use

Continue current use

Use only some of the strategies I have implemented this year

Use only what is required by my supervisor

Comments: