2016

Examination of Externalizing Behaviors within General Education, At-Risk, and Special Education Preschool-Aged Classrooms

Rebecca A. Rader
Eastern Illinois University

The Graduate School
EASTERN ILLINOIS UNIVERSITY

Thesis Maintenance and Reproduction Certificate

FOR: Graduate Candidates Completing Theses in Partial Fulfillment of the Degree
Graduate Faculty Advisors Directing the Theses

RE: Preservation, Reproduction, and Distribution of Thesis Research

---

Preserving, reproducing, and distributing thesis research is an important part of Booth Library's responsibility to provide access to scholarship. In order to further this goal, Booth Library makes all graduate theses completed as part of a degree program at Eastern Illinois University available for personal study, research, and other not-for-profit educational purposes. Under 17 U.S.C. § 108, the library may reproduce and distribute a copy without infringing on copyright; however, professional courtesy dictates that permission be requested from the author before doing so.

Your signatures affirm the following:

- The graduate candidate is the author of this thesis.
- The graduate candidate retains the copyright and intellectual property rights associated with the original research, creative activity, and intellectual or artistic content of the thesis.
- The graduate candidate certifies her/his compliance with federal copyright law (Title 17 of the U. S. Code) and her/his right to authorize reproduction and distribution of all copyrighted materials included in this thesis.
- The graduate candidate in consultation with the faculty advisor grants Booth Library the non-exclusive, perpetual right to make copies of the thesis freely and publicly available without restriction, by means of any current or successive technology, including by not limited to photocopying, microfilm, digitization, or internet.
- The graduate candidate acknowledges that by depositing her/his thesis with Booth Library, her/his work is available for viewing by the public and may be borrowed through the library's circulation and interlibrary loan departments, or accessed electronically.
- The graduate candidate waives the confidentiality provisions of the Family Educational Rights and Privacy Act (FERPA) (20 U. S. C. § 1232g; 34 CFR Part 99) with respect to the contents of the thesis and with respect to information concerning authorship of the thesis, including name and status as a student at Eastern Illinois University.

I have conferred with my graduate faculty advisor. My signature below indicates that I have read and agree with the above statements, and hereby give my permission to allow Booth Library to reproduce and distribute my thesis. My adviser's signature indicates concurrence to reproduce and distribute the thesis.

[redacted]

Specialist in School Psychology
Graduate Degree Program

4/21/16
Date

Please submit in duplicate.

Examination of Externalizing Behaviors within General Education, At-Risk, and Special Education Preschool-Aged Classrooms

BY

Rebecca A. Rader

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF SPECIALIST IN SCHOOL PSYCHOLOGY
IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, IL
2016

I HEREBY RECOMMEND THAT THIS THESIS BE ACCEPTED AS FULFILLING THIS
PART OF THE GRADUATE DEGREE CITED ABOVE

Abstract

This study examined the natural occurrence of externalizing behaviors within six preschool classrooms (two general education classrooms, two at-risk classrooms, and two special education classrooms). Approximately 100 direct observation minutes were collected in each of the six classrooms to obtain measures of student off-task and disruptive behavior. No significant off-task differences were found across the three classroom types. However, a significant difference in disruptive behavior was found between special education and general education classrooms and also between special education and at-risk classrooms. The most commonly observed disruptive behaviors across all six classrooms were talking out, being out of area, and inappropriate behavior. Implications and directions for future study are discussed.

Acknowledgements

I would like to express my sincere appreciation to my thesis chair, Dr. Margaret Floress, for her continual guidance, patience, and feedback throughout this project. This endeavor was made possible only by her unwavering support, as she went above and beyond the duties of a thesis chair. Her dedication to this research, and to the field as a whole, is admirable.

I would also like to thank Drs. Lyndsay Jenkins and Gary Canivez, for their direction, time, and effort. The feedback provided by these two professionals helped improve my study, as well as the frame of thought for which I approach my research.

I would like to thank the teachers who allowed us to come into their classrooms in order to collect the behavioral data. Your dedication to serving your students has made this research possible, and for that I am grateful. I would also like to thank Jessica Berlinghof, Christina Bounds, and Morgan Eldridge for the contribution of their time and ability in order to conduct the observations.

This could not have been done without the love and support of my father, who provided me with the opportunity to further my education, and my brother, whose humor was available when I needed it most. Finally, I would like to thank my fiancé Orry, for not only tolerating but embracing my educational pursuits these past three years. Your encouragement and patience has been invaluable to me.

Table of Contents

List of Tables

Examination of Externalizing Behaviors within General Education, At-Risk, and Special Education Preschool-Aged Classrooms

Literature Review

Introduction

Disruptive and noncompliant behavior among preschool-aged children is not uncommon (Achenbach & Edelbrock, 1981; Egger & Angold, 2006; Keenan et al., 2011; Keenan & Wakschlag, 2004; Wakschlag et al., 2007). As many as 50% of parents of nonclinical preschool-aged children report that their children exhibit externalizing behaviors, such as "argues at lot…disobedient at home [or] stubborn, sullen, or irritable" (Achenbach & Edelbrock, 1981, p.53). When investigating the developmental pathway of behaviors in nonclinical children, externalizing behaviors are expected to peak at age 2, then distinctively decline as the child continues to mature (Tremblay, 2010). Despite the evidence to suggest that preschool children are naturally noncompliant and disruptive, many preschool teachers and administrators may be intolerant of behaviors which are typical for this population. For instance, from a national prekindergarten survey, Gilliam (2005) found that preschool students were expelled (6.7 students per 1,000) 3.2 times more frequently than K-12 students. Furthermore, it was reported that 10.4% of all state-funded preschools expelled at least one student during the 2003-2004 school year. The occurrence of preschool expulsion may have a detrimental impact on a child's pre-academic, social, and behavioral development. When children are expelled from preschool, they may lose key pre-academic learning opportunities, which may set them behind academically when beginning formal schooling (Lamy, 2013; Schweinhart et al., 2005). In addition, children expelled from preschool are less likely to learn teacher and

classroom expectations, which is likely to leave them further disadvantaged when starting kindergarten (Ritz, Noltemeyer, Davis, & Green, 2014).

Given the prevalence of preschool expulsions and that approximately 50% of preschool-aged children display externalizing behavior during their preschool years, it is important to know to what extent these behaviors may be naturally occurring within the preschool setting. If data illustrate that externalizing behaviors are common within preschool settings, these findings may encourage preschool staff to emphasize proactive tactics to increase preschool children's adaptive and appropriate behavior, as opposed to reactive strategies, that attempt to deal with problems once they have been established. Emphasizing proactive strategies may better prepare preschool staff to effectively manage preschoolers' problem behaviors and keep them in preschool rather than resorting to expulsion. The current study contributes to the literature on externalizing preschool behavior by measuring the natural prevalence of externalizing behaviors within preschool classrooms. The next section will begin by reviewing developmentally typical preschool-age student behaviors, clinically significant externalizing behaviors, and the detrimental outcomes of clinically significant problem behaviors.

Preschool Externalizing Behaviors

Developmentally typical. Parents and teachers alike who interact with pre-school aged children may question whether some of the externalizing behaviors exhibited are cause for concern. Externalizing behaviors, according to Tucker-Drob and Harden (2013), are described as behaviors that are indicated by the child's "failure to regulate their behavior to meet the expectations of the 'external' world" (p. 77). Examples of these behaviors include hyperactivity, impulsivity, noncompliance, and aggression and these

behaviors commonly emerge around 2.5 to 5 years of age, when children are likely to begin attending preschool (Gartstein, Putnam, & Rothbart, 2012; McMahon & Forehand, 2005). This means that it is likely difficult for most preschool-aged children to sit still and pay attention to instruction for long periods of time. Furthermore, it may be unrealistic to expect preschool-aged children to control their impulsive or inattentive behaviors similar to older children.

Clinically significant. As mentioned previously, it is common for young children to demonstrate externalizing behaviors. Kazdin (2013) reported that externalizing concerns account for approximately 50% of the clinical treatment referrals for young children. More extreme displays of externalizing behavior such as excessive negative affect, behavior disinhibition, or a greater prevalence or severity in aggression (Egger & Agnold, 2006) is not considered typical. Although approximately half of preschool children are described by their parents to display externalizing behavior (Achenbach & Edelbrock, 1981), only a smaller percentage of preschool-aged children exhibit behaviors severe enough to meet diagnostic criteria. Diagnoses such as Oppositional Defiant Disorder (ODD) may occur in the preschool population, depending on the severity and frequency of inappropriate behaviors displayed. Clinically significant externalizing behaviors may be similar in nature to developmentally typical behaviors, but often differ in the frequency and severity of the behaviors being exhibited. Richman and Graham (1971) developed a behavioral screener based on problem behaviors that frequently led to psychiatric referral. Based on their survey of problem behaviors, about 15% of referred preschool-aged children were diagnosed with mild behavior problems, and about 7% of referred preschool-aged children were diagnosed with moderate to severe behavior

problems. Mild behavior problems were rated as occurring "sometimes", while severe behavior problems occurred "frequently" or "excessively". These behavior problem estimates are similar to those reported in the 2006 BASC-2 standardization sample. Teachers ratings produced base rates indicating that 7.9% of students (ages 2-5) were identified as having Emotional/Behavioral Disturbance and 11.4% were identified with AD/HD. Parents reported that 7.0% of students (ages 2-5) were identified as having Emotional/behavioral Disturbance and 12.7% were identified with AD/HD (Reynolds & Kamphaus, 2006). A study by Keenan and Wakschlag (2004) also reported similar estimates. Approximately 8% of preschool-aged children exhibited behavioral problems that were considered severe enough to seek outside evaluation.

In order to measure disruptive behavior differences in children across sex, environmental settings, and disruptive psychopathology, Gray et al. (2012) investigated 327 preschool-aged children and found that the disruptive behaviors were moderated by the child's sex and diagnosis. Disruptive behavior was assessed using the Disruptive Behavior Diagnostic Observation Schedule, with a significant difference in the disruptive behaviors of children diagnosed with a disruptive behavior disorder (DBD) and those who were classified as 'nondisruptive'. Furthermore, disruptive boys were more likely to exhibit the same types of behaviors at home and school, while at-risk and nondisruptive boys as well as all girls (regardless of classification) were able to modify their behaviors based on environmental contexts (Gray et al., 2012).

Approximately 50% of parents with preschool-aged children report that their child exhibited externalizing behaviors (Achenbach & Edelbrock, 1981) such as hyperactivity, impulsivity, or noncompliance, but only a small percentage of children display behaviors

to the extent that clinical treatment is deemed necessary (Keenan & Wakschlah, 2004; Richman & Graham, 1971), which suggested that the majority of externalizing behaviors displayed by children ages 2-5 are developmentally typical. However, approximately 7-8% of the preschool-age population will have clinically significant behavior problems. These behaviors could be manifested as noncompliance (e.g., refusal to follow directions), hyperactivity, impulsivity (i.e., behavioral disinhibition), or aggressive/destructive tendencies. These behaviors amongst individuals with clinically significant behavior problems occur at a markedly higher frequency or severity than preschool-aged children who display externalizing behaviors that are developmentally typical.

Early Childhood Coercion Interaction Model

When observing the presence of externalizing behaviors displayed by preschool-aged children, it is important to be aware of the context in which these behaviors occur, including interactions between the caregiver and the child. By acknowledging the role that caregivers may have in the role of developing externalizing behaviors, observers can quantify the behavior in respect to the environment, as opposed to adopting a medical model (i.e., finding a problem internal to the child).

The coercion interaction model assesses the reciprocity between the parent and child and offers a theory of how the coercive interaction between caregiver and child can foster externalizing behavior problems (Keenan & Shaw, 1994; Patterson, 1982). The coercion interaction model suggests that externalizing behaviors such as hostility or negative emotionality are mutually reinforced by the child and the adult (Scaramella & Leve, 2004; Shriver 2008). In these situations, both the child and the adult develop a

more severe variation of increasingly hostile and aggressive behavior. For example, a parent tells their child to pick up their toys. In response, the child refuses and begins to cry and whine. To avoid the discomfort of hearing their child cry and whine, the parent tells the child they need to clean up in 5 min (rather than cleaning up immediately). From infancy, the child has likely learned that whining and crying lead to advantageous consequences, such as being picked up, fed, or changed; however, when children generalize crying or whining to avoid parental demands (e.g., being told to pick up toys), the coercion model is initiated.

In the coercion model, both the parent and the child's behaviors are maintained by negative reinforcement. If the parent stands firm (i.e., follows through with their instruction), the child is likely to escalate their crying and whining, which the parent will likely find unpleasant. The child's inappropriate behavior may become so intense that the parent relents and removes the request while the child's behavior escalates. In this situation, both parties are negatively reinforced. The child has escaped the parents' instruction and the parent has escaped the child's whining and crying. The next time the parent gives an instruction, they may not relent and the child has learned (from prior experience) that it is worthwhile to escalate their whining and crying in order to escape parental demands. However, this time the parent may hold their ground and, in response to the child's escalated behavior, raise their voice and physically prompt the child to comply with instructions and pick up. In this situation, the parent's more aggressive directive may be reinforced because the child complies. Consequently, each time the parent and child interact, they may variably increase the severity of their behavior.

This cycle is particularly detrimental when established early in life. McMahon and Forehand (2005) referred to this as the "early starter pathway". The early starter pathway is when preschool-aged children begin to display more severe externalizing problems than what is developmentally appropriate. These behaviors continue throughout childhood and adolescence, increasing the likelihood that these children will develop more severe behaviors as they grow older (McMahon & Forehand, 2005). McMahon and Forehand (2005) have also described that while the coercive model often focuses on noncompliant behaviors, it can also be altered to increase compliance in parent-child interactions. By meeting noncompliant behaviors exhibited by the children with parental warmth, sensitivity, or positive receptiveness, the child is more likely to comply with requests, thus creating a positive cyclical interaction.

Detrimental Outcomes

When externalizing behaviors occur at a frequency or severity that can be classified as clinically significant, long-term effects are dismal. First, children who exhibit severe externalizing behaviors are at a higher risk for developing externalizing disorders such as oppositional defiance disorder (ODD) or conduct disorder (CD). Aside from being at an increased risk for developing externalizing disorders (i.e., ODD or CD), children who exhibit more externalizing behaviors are at-risk for school problems. For instance, students with externalizing problems are likely to have lower levels of academic achievement, an increased probability for expulsion, and school drop-out (Tucker-Drob & Harden, 2013). If externalizing problems continue to persist through childhood and into adolescence, these problem behaviors are likely to develop into more severe psychopathologies, such as delinquent behaviors or increased rates of aggression (Hill,

Degnan, Calkins, & Keane, 2006). Furthermore, if externalizing behaviors persist into adulthood, there is a heightened risk of violence, both mental and physical health problems, as well as an increased chance of experiencing economic hardships (Tucker-Drob, & Harden, 2013). Attending high-quality preschool programs is likely to prevent problem behaviors because children have increased opportunities to learn prosocial behaviors which will prepare them for formal schooling, and life.

The Importance of Preschool

Policymakers and educators alike have noticed the benefits of preschool, resulting in further funding and expansion of state-funded preschool programs. State-funded preschool programs exist in 40 states and serve roughly 800,000 children every year. It is typically understood that as young children continue to procure a greater depth of knowledge in the areas of cognition, communication, and self-regulation, externalizing behaviors tend to decrease in frequency and severity (Hill et al., 2006; Gilliam, 2005). As mentioned above, nonclinical children tend to display externalizing behaviors until about 2 years of age, and then these behaviors decrease in frequency as the child continues to mature (Tremblay, 2010). Preschool may serve as an effective intervention in and of itself for externalizing behaviors simply through attendance. For example, preschool children may be particularly receptive to learning about prosocial behaviors when they are incorporated into preschool lessons. This may be especially true in preschool where there are frequent opportunities to directly teach prosocial skills when preschool children are faced with externalizing difficulties (e.g., sharing, waiting). That is, children who attend high-quality preschool programs are given ample opportunities to learn and practice behaviors such as paying attention, controlling impulsivities, and

complying with directions, while being positively reinforced for pro-academic and pro-social behaviors.

Tucker-Drob and Harden (2013) investigated the impact of preschool attendance on the development of externalizing behaviors by comparing home and preschool environments and the frequency of externalizing behaviors displayed. Results using the Preschool and Kindergarten Behavior Scales–Second Edition (PKBS-2) and the Social Skills Rating System (SSRS) indicated that at age 4, the home environment was responsible for 23% of the variance in externalizing behaviors, regardless of whether or not the child was enrolled in a preschool program. Upon entering kindergarten, the home environment accounted for 52% of the variance in externalizing behaviors in children who did not attend preschool, and none (0%) of the variance in externalizing behaviors in children who did attend preschool (Tucker-Drob & Harden, 2013). The results of this study suggest that it is developmentally appropriate for children to display some level of externalizing behavior, both children who did and did not attend preschool exhibited externalizing behaviors prior to attendance; however, children who attended preschool were less likely to continue engage in externalizing behaviors than those who did not attend preschool.

Preschool Student-Teacher Interaction

Teacher attention. Dobbs, Arnold, and Doctoroff (2004) conducted a study in which they observed the relation between teacher attention and disruptive behavior within a preschool classroom, as well as the relation between teacher attention and the child's gender. The study differentiated between positive teacher attention (e.g., teaching, rewards, physical warmth, or non-specific positive interactions such as playing,

encouragement, or pleasant interactions) and negative teacher attention (e.g., disciplinary commands, criticisms, or reprimands), as well as its impact on the behaviors. Fagot (1973) found that classrooms where teachers utilized less criticisms and commands were more likely to produce an increased amount of on-task behaviors. Because Fagot's findings are 3 decades old, Dobbs et al. (2004) revisited and expanded on this area of research. Dobbs predicted that boys would receive more positive and negative teacher attention than girls, because boys are more likely to exhibit externalizing behaviors that are classified as disruptive. Therefore, teachers would be more likely to direct their attention in general to male students. However, results indicated that boys were more likely to receive non-discipline commands, commonly labeled as redirection, while girls were more likely to receive positive interactions and rewards. There were no significant differences in physical warmth or praise modified by gender. In other words, teachers were found to be equally warm and provide praise to both boys and girls.

Negative student-teacher interaction. It is important to be aware of how teachers cope with unwanted behaviors. Gebbie, Ceglowski, Taylor, and Miels (2012) conducted a survey with preschool teachers who taught students with disabilities and found that teachers most frequently requested additional behavior management training to address student disruptive behavior. This same study found that teachers who reported struggling with behavior management estimated that 20% of their time was spent engaging in negative student interactions, and only 5% of their time was spent engaging in positive student interactions. Negative student-teacher interactions may create a cyclical relationship between disruptive or challenging behaviors and an increase in teacher stress through punitive reactions (Alvarez, 2007; Gebbie et al., 2012; Stormont,

2002), similar to the coercion interaction model described previously. Therefore, when teachers have students who are more disruptive, they are more likely to interact with them through reprimands and discipline. The next section will discuss how teachers who deal with externalizing student behaviors are likely to be more stressed and have feelings of worthlessness, which may lead to ultimately leaving the education field.

Teacher stress and attrition. One of the most reported reasons for leaving the field of education is managing classroom behavioral problems (Ingersoll, 2001; Katsiyannis, Zhang, & Conroy, 2003; Nichols & Sosnowsky, 2002). Educators report that dealing with challenging behaviors within the classroom is the most stressful part of their job (Gebbie et al., 2012; Jazaar, Lambert, & O'Donnell, 2007; Merrett & Wheldall, 1993; Scott, Park, Swain-Bradway, & Landers, 2007). Moreover, disruptive behavior problems were reported to be prevalent within rural, urban, and suburban settings, indicating that behavioral discrepancies within the classroom is a universal problem and all teachers are likely to benefit from additional prevention and intervention techniques (Coalition for Psychology in Schools and Education, 2006). The next section will discuss how common it is for preschool children with problem behaviors to be expelled.

Preschool Externalizing Behaviors and Expulsion

Expulsion is defined as 'the complete and permanent removal of a child from an entire educational system' (Gilliam & Shahar, 2006, p. 228), and is deemed the most severe action that can be taken when deciding punishment. Expulsion across preschool classrooms was found to be three times more common than expulsion in other grades (Gilliam & Shahar, 2006). Gilliam (2005) investigated preschool expulsion in cooperation with the National Prekindergarten Study (NPS). Phone interviews were

conducted with the lead preschool teacher and they were asked to report the number of children that were expelled from their classrooms due to behavioral issues, as well as that child's age, gender, and race/ethnicity. The survey found that with a current enrollment rate of roughly 40,000 preschool-aged children, a reported 5,117 children were expelled due to behavioral issues over the course of one school year. It was further stated that this was 3.2 times greater the expulsion rate for children in grades Kindergarten through 12. Gilliam (2005) also found that four-year-olds were two times more likely to be expelled as three-year-olds, that boys were expelled over four and a half times more than girls, and that African American children were expelled 50% more than Caucasian and Latino children. When analyzing which type of program most frequently expelled students, Gilliam (2005) found that teachers who taught in a religion-based preschool, teachers who taught in a private (for-profit) center, and teachers at other community-based preschool centers were significantly more likely to expel students than teachers who taught at either a state or federally funded program (e.g., Head Start).

A follow-up study was conducted by Gilliam and Shahar (2006) that analyzed the rates of preschool expulsion within the state of Massachusetts. While similar rates were found concerning the prevalence of preschool expulsions in comparison to other grades, this study also surveyed the reasons why preschool children were expelled. Reasons included larger class sizes, higher ratios of three to four-years-olds in attendance, and the teacher reported elevated job stress levels. Interestingly, while the rates of *expulsion* continued to be significantly higher in preschool compared to other grades, the rates of preschool *suspension* were no higher than those of other grades. Gilliam and Shahar suggested that preschools may use a more severe punishment (i.e., expulsion) rather than

suspension because preschool is not mandated like other grades. Therefore, preschool educators may select a more exclusionary punishment because there is no requirement for children to attend preschool and they can therefore be more liberal with expulsion. Because of the crucial skills that can be developed during preschool, it would be beneficial to decrease the number of expulsions by increasing proactive practices that address young children's externalizing behaviors. Further, with the implementation of Common Core and an increase in academic expectations by the time students enter kindergarten, preschool staff have a unique and critical opportunity to teach pre-academic skills as well as prosocial behavioral expectations.

Benefits of Preschool

When young children are exposed to high quality preschool programs, there can be a multitude of benefits in both short-term and long-term gains (Gilliam, 2005; Hill et al., 2006; Lamy, 2013). With the implementation of Common Core and an ever-increasing depth of curriculum and subsequent expectations of success, it is important that children are well prepared to begin formal schooling. The National Association for the Education of Young Children (2012) released an article addressing the impact that Common Core State Standards (CCSS) are having on the field of education as a whole, as well as how they impact early childhood education, both positively and negatively. One of the concerns is that the amount of time allocated to reading and math will leave little time to teach students about appropriate behavior and prosocial interactions. One of the benefits of CCSS is its emphasis on effective, research-based instructional techniques throughout all grades, including early childhood. It is also encouraged that early childhood programs (i.e., preschools) be structured similar to other grades by placing

importance on research-based practices while considering developmentally appropriate expectations.

Academic benefits. Preschool can be especially beneficial for children from low-income families who may not have as much exposure to vocabulary and literacy information, as well as social skills, that are necessary to be successful upon entering Kindergarten (Halle et al., 2009; Lamy, 2013). In alignment with the new Common Core State Standards, children in Kindergarten are expected to demonstrate knowledge of print concepts, phonological awareness, phonics, word recognition, and begin reading emergent-reader passages (Common Core State Standards Initiative, 2014). Therefore, a foundation in emergent literacy is crucial in order to follow the given timeline for mastery. Children who experience a major gap in readiness upon entering Kindergarten are at a higher risk for exhibiting a gap in abilities in academic performance in comparison to their peers, as well as being predisposed for dropping out during high school or not entering higher education. In short, children who start Kindergarten behind their peers are likely to remain behind throughout their formal education years (Lamy, 2013). In addition, children who attended preschool were roughly 40% less likely to be retained in later grades, and special education placements for children who received preschool educations were approximately 50% less than individuals who began schooling at Kindergarten (Lamy, 2013). Along with academic benefits from attending preschool, there are obvious social and emotional benefits.

Social/Emotional benefits. Common Core State Standards for Illinois includes a series of social/emotional goals surrounding different developmental stages (i.e., grades K through 12th). During early elementary, children are expected to recognize and label

emotions and identify how emotions are linked to their behavior. Children are also expected to demonstrate impulse control, amongst more academically-slighted social goals such as learning hand-raising in order to be called on, being able to work cooperatively in an academic setting, and placing emphasis on turn-taking within the classroom (Illinois State Board of Education, n.d.). Preschool is a logical place for children to learn social/emotional skills and regulation. High-quality preschool education may decrease the likelihood that children at-risk for behavioral problems will exhibit increased externalizing behavior and academic challenges for the future.

Life after school. Research has shown that children who received a high quality preschool education are more likely to graduate from high school, as well as go on to become productive members of society (Gilliam, 2005). Schweinhart et al. (2005) conducted a longitudinal study of children who attend preschool, which showed that children who received a high-quality preschool education were significantly less likely to be convicted of a crime, more likely to graduate from high school than their peers who did not attend preschool (65% to 45%, respectively), they scored significantly higher on standardized assessments, and were more likely to earn higher wages than the control group. A study conducted by Barnett and Masse (2007) stated that females who attended preschool were less likely to become teenage mothers and were more likely to attend college. Children who received a high-quality education are more likely to demonstrate academic, as well as social and emotional, successes.

Literature Summary and Impact of Current Study

The occurrence of externalizing behaviors among preschool-aged students is common (Achenbach & Edelbrock, 1981; Egger & Angold, 2006; Keenan et al., 2011;

Keenan & Wakschlag, 2004; Wakschlag et al., 2007). Considering half of preschool-aged children are reported to have displayed some type of externalizing behavior at some point in their young lives, it is surprising that across the nation preschool students are three times more likely to be expelled compared to students in grades K-12. Because these behaviors are common amongst young children, it is difficult to distinguish between behaviors that are clinically significant and those that are developmentally typical. Many researchers and clinicians suggest that it is the frequency and intensity which sets apart young children with typical externalizing behaviors and those who need intervention. Developmentally, among nonclinical children, externalizing behaviors typically peak at age 2 and then decline as the child approaches kindergarten (Tremblay, 2010), especially when these children attend a high-quality preschool program that provide prosocial learning opportunities. When children are expelled from preschool, they miss out on opportunities to engage socially with peers, learn appropriate social/emotional skills, and acquire pre-academic knowledge. Expelling preschool-aged children (who are likely at-risk to begin with) ultimately places them at even greater risk for long-term behavioral, academic, and ultimately life-long problems.

The current study aimed to measure the prevalence of externalizing behaviors within preschool-aged classrooms in order to support the hypothesis that the occurrence of these behaviors within this age group of children is developmentally appropriate and to an extent, to be expected. Obtaining this information is important because it is likely to support the need of proactive and preventative classroom management strategies for preschool-aged children, in hopes of reducing the occurrence of reactive and severe measures (e.g., expulsion). Therefore, it is important to add to the literature addressing

externalizing behaviors in preschool-aged students to increase awareness of what externalizing displays may be considered developmentally typical. This information is likely to lead to teaching all preschool teachers (i.e., at-risk, special education, and general education) strategies for managing externalizing behaviors that would prove beneficial for improving academics, the classroom atmosphere, and social tendencies (e.g., turn-taking and cooperation; Ritz, Noltemeyer, Davis, & Green, 2014).

Research Questions

The current study aimed to contribute to the literature on preschool-aged externalizing problems by measuring the occurrence of off-task and disruptive behaviors within preschool classrooms in Central Illinois. The following research questions were answered: 1) What is the prevalence of externalizing behaviors occurring within preschool classrooms? According to Achenbach and Edelbrock (1981), it is common for parents of preschool-aged children to report that their children exhibit externalizing behaviors; therefore, it was hypothesized that the occurrence of these behaviors observed in the preschool setting will be high (i.e., approximately 30% of observation intervals). This estimate was based on the following two studies. Scott, Alter, and Hirn (2011) found that among general education elementary-age students, 13% of intervals were identified as off-task and 6% of intervals were identified as disruptive. Williams, Noell, Jones, and Gansle (2012) found that among elementary-age students, 33% of observation intervals were coded as either off-task or disruptive. Therefore, if approximately 6%-33% of observed intervals were identified as disruptive among elementary age general education, it was hypothesized that among preschool general education, at-risk, and special education off-task classrooms, off-task and disruptive behavior would be identified

during approximately 30% of the intervals observed. The second research question was 2) Is there a difference in the prevalence of externalizing behaviors across classroom type (i.e., general, at-risk, special education)? It was predicted that the occurrence of externalizing behaviors would be greater in special education and at-risk preschool classrooms compared to general education preschool classrooms. The third research question was 3) What types of disruptive behaviors are observed most frequently in classrooms? Based on previous studies, it was hypothesized that the disruptive behavior that would be most prevalent across all preschool classrooms would be aggression and noncompliance (Gartstein, Putnam, & Rothbart, 2012; McMahon & Forehand, 2005).

Methods

Participants and Setting

Teacher participants included six preschool education teachers from Central Illinois. Two teachers taught in private general education preschool classrooms, two teachers taught in special education preschool classrooms, and two teachers taught in at-risk preschool classrooms (see Table 1 below).

Table 1.

Teacher demographics

		n = 6	%
Sex			
	Male	0	0
	Female	6	100
Racial Background			
	White/Caucasian	6	100
Years of Teaching Experience			
	1-5	0	0
	6-10	4	66.6
	11-15	0	0
	16-20	1	16.6
	20+	1	16.6
Highest Educational Degree Obtained			
	Four Year College Degree	5	83.3
	Master's Degree	1	16.6

The first general education classroom was a "three-year-old classroom" and included 13 students. The second general education classroom was a "four-year-old classroom" and included 23 students and a classroom aide. Both classrooms were located in a private parochial school that housed Prekindergarten through fifth grade. There was a total of 114 students in the school and 94% of the students enrolled at the school were Caucasian GreatSchools.org; see Table 2 below).

Table 2.

Classroom demographics

Class Type	*n*	3 year old	4 year old	5 year old	Male	Female
General Ed. 1	23	0 (0%)	11 (48%)	12 (52%)	12 (52%)	11 (48%)
General Ed. 2	13	3 (23%)	10 (77%)	0 (0%)	5 (38%)	8 (62%)
At-Risk 1	15	6 (40%)	5 (33%)	4 (27%)	9 (60%)	6 (40%)
At-Risk 2	17	5 (29.5%)	7 (41%)	5 (29.5%)	12 (70%)	5 (30%)
Special Ed. 1	10	3 (30%)	4 (40%)	3 (30%)	7 (70%)	3 (30%)
Special Ed. 2	11	2 (18%)	4 (37%)	5 (45%)	8 (73%)	3 (27%)

The first special education classroom included 10 children (ages 3-5) and a classroom aide. It was located in an elementary school that housed preschool and kindergarten classes, with a total enrollment of 215 students with an average class size of 19 students. The racial/ethnic make-up of the school consisted of 83.3% Caucasian, 7.9% African American, 2.8% Asian, and 5.6% biracial. According to Illinois Report Card (IllinoisReportcard.com), 62% of the students enrolled at the school were considered low-income, and 32% of all students had an Individual Education Plan (IEP). The second special education classroom included 11 children (ages 3-4) with a classroom aide. This special education classroom was housed in a community elementary school (grades 4-6); however, the preschool was managed and run by the area special education cooperative. There was a total of 699 students in the school (including preschool and grades 4-6). According to Illinois Report Card, 90% of the students enrolled were Caucasian, with 3.9%

African American students and 1.9% Hispanic students. Approximately 51.9% of all students were considered low-income, and 16.5% of the students had an IEP.

Both at-risk preschool classrooms served students ages 3-5 and each classroom had one aide. The first at-risk classroom had 15 students, while the other had 17 students. The at-risk classrooms were housed in the same community elementary school described above and was also managed and run by the same area special education cooperative mentioned above. In order to qualify for the at-risk preschool programing, children were identified as at-risk for academic failure through a preschool screener (e.g., DIAL-4). At-risk programing was intended to assist students in adjusting to preschool classroom expectations, while also developing academic pre-requisite skills necessary for kindergarten. The at-risk and special education classrooms were part of a state-funded public school programming. The general education classrooms did not receive state funding.

Materials/Instruments

The goal of this study was to collect data regarding the occurrence of externalizing behaviors among preschool-aged children in general, at-risk, and special education preschool classrooms. To do this direct observations measuring off-task and disruptive behavior were conducted. Operational definitions for off-task behavior were obtained from the literature (Shumate & Wills, 2010). Operational definitions for disruptive behaviors were adapted from the Revised Edition of the School Observation Coding System (REDSOCS; Jacobs et al., 2000). Interrater reliability for the REDSOCS, as calculated by occurrences for each subcategory of behavior, ranged from 70% agreement for the off-task behavior code to 74% agreement for disruptive behaviors.

Kappa coefficients ranged from .80 for off-task behaviors to .83 for disruptive behaviors (Jacobs et al, 2000).

Preschool student observation form. The preschool student observation consisted of a 10-minute partial-interval observation (see Appendix A for observation form). Ten children were randomly selected from the class to be observed during the observation period. One child was randomly selected from the class, and then every other child was observed until ten students in the classroom were observed. Each interval was 10 seconds long, therefore each student was observed for six intervals (or 1 minute). Every six intervals there was a 10 second break where the observer did not record student behavior. Partial interval recording was utilized, meaning that if the behavior occurred within the interval, regardless of duration, it was recorded for the interval.

Observations took place during whole-group teacher instruction (e.g., carpet time, calendar time, and practicing of letters and numbers). Observers were trained to start and stop observations depending on whether or not the teacher was standing at the front of the class with the expectation that students were paying attention and listening to what the teacher was saying. This was done for two reasons. First, collecting observational data during whole-group instruction ensured that the data were collected consistently across the six classrooms. It is possible that students may have engaged in more or less externalizing behavior depending on the type of instruction (i.e., structured or unstructured). Second, collecting data live presents challenges in accurately sampling all the students in the classroom and accurately hearing and watching all the students in the classroom. Observing students during whole-class instruction, when the students were in

a centralized location, increased the likelihood that students were accurately sampled and observed.

Off-task. Off-task was defined as "child is looking away from desk work or looking away from the teacher at the front of the class, or looking away from teacher instruction (e.g., smart board)." Examples included "staring at the ceiling or looking at a visitor in the class, or staring off where the student's eye gaze is not direct towards their work, the teacher, or instruction." An observer coded both off task and disruptive behavior if the child's disruptive behavior inhibited them from paying attention to the teacher or to instruction (disruptive behavior definitions are describe below). At the end of each observation, the number of total off-task intervals were summed. The percentage of off-task intervals was calculated by taking the total number of off-task intervals, dividing by the total number of intervals observed (generally 60 intervals), and multiplying by 100.

Disruptive behavior. Disruptive behavior was divided into 13 subcategories which include: Whining, Crying, Yelling, Destructive Behavior, Aggressive Behavior, Negativism, Self-Stimulation, Demanding Attention, Inappropriate Behavior, Talking Out of Order, Being Out of Area, Cheating, and Noncompliance. Definitions for subcategories were used as defined by REDOCS (Jacobs et al., 2000) and no changes were made (see Appendix B for exact definitions).

When disruptive behavior was identified during an interval, the observer used an abbreviated code to indicate which of the 13 disruptive behaviors was observed. In the case of this study, only one disruptive behavior was identified per interval. In the circumstance that more than one disruptive behavior was displayed, the observer would

note both behaviors within the interval. At the end of each observation, the number of total disruptive intervals were summed (regardless of what abbreviated code was marked). The percentage of disruptive intervals observed during the observation was calculated by taking the total number of disruptive intervals, dividing by the total number of intervals observed (generally 60 intervals), and multiplying by 100.

Direct Observation Training

The primary researcher and three research assistants (two graduate students and one undergraduate student) were trained to conduct classroom observations. Observers engaged in multiple trainings before conducting classroom observations individually. First, observers were provided operational definitions for both off-task and disruptive behaviors. After reviewing operational definitions, observers discussed examples and non-examples of externalizing problems. Reliability training was obtained between the primary researcher and research assistants during three observations within the classroom. Once inter-observer agreement (IOA) was 80% or greater with the primary researcher for all three classroom observations, the observers were considered trained. Across all three training observations IOA was 100%. For training purposes, IOA was calculated using percent agreement (the number of agreements divided by the number of agreements and disagreements, multiplied by 100).

Procedures

Prior to data collection, approval from Eastern Illinois University's Institutional Review Board was obtained. Permission was also obtained to solicit participation from regional preschools by first contacting the principal or director at the school or preschool. As described in the participant section, six classrooms were recruited (two general

education, two at-risk, and two special education). The primary researcher met with each of the six teachers to describe the study and obtain informed consent (Appendix C). At that time, teachers were also asked to complete a demographics form (Appendix D).

Prior to classroom observations, teachers provided the primary researcher with a class schedule and general times when whole-group instruction took place. The primary researcher coordinated observations for the classroom and informed the teacher what days and times observers would observe. Teachers were informed that approximately 100 direct observation minutes would be collected in their classroom. Across the six classrooms approximately 10, 10-minute observations were collected in each classroom using the preschool student observation form (Appendix A). Total observation minutes ranged from 101-118 across the six classrooms and 40.8% (range 33%-47.3%) of the observations were collected using two observers simultaneously so that IOA could be calculated.

Data Analyses

In order to answer the research questions, a series of analyses were conducted. To answer the first question, 1) What is the prevalence of externalizing behaviors occurring within preschool classrooms?, the percentage of off-task intervals and the percentage of disruptive behavior intervals were calculated for each of the six classrooms. In addition, the percentage of off-task intervals and the percentage of disruptive behavior intervals were calculated for each classroom type (i.e., general, at-risk, and special education). Finally, because each classroom did not have exactly 100 minutes of direct observations (total observation minutes ranged from 101-118 or 606-708 intervals) the number of off-task intervals identified per hour and the number of disruptive intervals identified per

hour were calculated for each of the six classrooms. In addition, the number of off-task intervals identified per hour and the number of disruptive intervals identified per hour were calculated for each classroom type.

For the second research question, 2) Is there a difference in the occurrence of externalizing behaviors across classroom type (i.e., general, at-risk, special education)?, the number of off-task intervals identified per hour and the number of disruptive intervals identified per hour for each classroom type are used. To determine if there were significant differences in the occurrence of off-task and disruptive behaviors across classroom categories, a MANOVA was conducted. A MANOVA compared the number of off-task intervals and disruptive behavior intervals identified per hour across each classroom category (i.e., general, at-risk, and special education) to determine if there were statistically significant differences across each classroom category.

To answer the third research question, 3) What types of disruptive behaviors are observed most frequently in preschool classrooms?, the percentage of disruptive behavior intervals were examined to determine which of the 13 disruptive behaviors were identified most frequently across all six classrooms and also based on classroom type. Rank order lists were created, one that examined all six classrooms together, and three more that examined each classroom type.

Inter-observer agreement (IOA) data were collected for 40.8% (range 33%-47.3%) of the observations in this study. Cohen's Kappa (Cohen, 1988) was calculated for off-task and disruptive behaviors. Kappa was calculated rather than percent agreement because it takes into account agreement that occurs by chance (i.e. in the absence of a behavior), as well as measuring agreement on the occurrence of a behavior. For

disruptive behavior Kappa = 0.828 (range 0.478–1.00; 14% of Kappa calculations below .61) and for off-task behavior Kappa = 0.764 (range 0.193 – 1.00; 14% of Kappa calculations below .61). Kappa values ranging from 0.61-0.80 are considered *substantial agreement* and values ranging from 0.81-1.00 are considered *almost perfect agreement* (Landis & Koch, 1977). Therefore, observer agreement for off-task and disruptive behavior were more than adequate.

Results

Prevalence of Externalizing Behaviors

Descriptive statistics were calculated to report the percentage of off-task and disruptive behavior intervals observed and also the number off-task and disruptive behavior intervals identified per hour. All six classrooms were examined first, followed by classroom type (general education, at-risk population, special education).

The percentage of off-task and disruptive behavior intervals for each classroom is presented in Table 3. Across all six classrooms, 14.2% (range 10.9% - 18.2%) of the observation intervals were identified as off-task and 14.6% (range 8.8% - 22.9%) were identified as disruptive. During any single observation, there was a wide range of variability in the percentage of off-task and disruptive behavior intervals observed (off-task range 0% - 50% and disruptive behavior range 0% - 56.7%).

The percentage of off-task and disruptive behavior intervals for each classroom type is presented in Table 4. The at-risk classrooms had the lowest average percentage of off-task intervals (11.7%; range 0% - 38.3%), followed by the general education classrooms that had on average 14.7% of off-task intervals (range 0% - 50%). The special

education classrooms displayed the highest average percentage of off-task intervals (16.4%; range 0% - 36.7%).

Differences in Externalizing Behaviors Based on Classroom Type

A multivariate analysis of variance for independent measures was conducted using the average number of off-task intervals and disruptive behavior intervals identified per hour within each classroom type. See Table 5 for average number of off-task and disruptive behavior intervals per hour by individual class and Table 6 for average number of off-task and disruptive behavior intervals per hour by class type. At an alpha level of .05, results indicated that there was a significant difference in the occurrence of externalizing behaviors across the three different classroom types (general education, at-risk population, special education), $F(4, 152) = 3.04$, $p = .02$, partial $\eta^2 = .07$, with a power of 79.5% Further examination of single analysis of variance for independent measures shows that at an alpha level of .05, results indicated that the average number of off-task intervals per hour did not differ significantly across the three different classroom types, $F(2, 77) = 1.28$, $p = .283$, partial $\eta^2 = .03$, with an observed power of 27%. In other words, there was no significant difference in the number of off-task intervals observed per hour in general education, at-risk, and special education preschool classrooms. The effect size for this test was 0.32, which represents a very small effect. Therefore, even with a larger sample size, it is unlikely that there is a significant difference in the occurrence of off-task behaviors in different class types.

A second one-way analysis of variance for independent measures was conducted using the average number of disruptive behavior intervals identified per hour within each classroom type. See Table 5 for average number of off-task and disruptive behavior

intervals per hour by individual class and Table 6 for average number of off-task and disruptive behavior intervals per hour by class type. At an alpha level of .05, results indicated that the average number of disruptive behavior intervals identified per hour was significantly different across the three different classroom types, $F(2, 77) = 5.38$, $p = .006$, partial $\eta^2 = .12$, with an observed power of 83%. The effect size for this test was 0.12, which constitutes a small effect. In other words, because of the high degree of variation, these results cannot be attributed solely to classroom type.

In order to further illustrate the significant differences between classroom types in regards to disruptive behavior intervals identified per hour, Tukey's HSD Post-Hoc analysis was conducted. There was a significant difference between the average number of disruptive behavior intervals identified per hour in the general education preschool setting ($M = 41.0$, SD = 30.2) and the special education preschool setting ($M = 71.3$, $SD = 40.0$, $p = .01$). There was also a significant difference between the average number of disruptive behavior intervals identified per hour in the at-risk preschool setting ($M = 45.9$, $SD = 33.9$) and special education preschool setting, $p = .02$. A significant difference was not found between the average number of disruptive behavior intervals identified per hour in general education and at-risk preschool classrooms.

Most frequently observed disruptive behaviors. To answer the third research question, What types of disruptive behaviors are most frequently observed in preschool classrooms? the percentage of disruptive behavior intervals were examined to determine which of the 13 disruptive behaviors are identified most frequently across all six classrooms (see Table 7) The most frequently observed disruptive behaviors across all six

preschool classrooms were Talking Out (43.2% of intervals observed), Out of Area (23.7% of intervals observed), and Inappropriate behavior (16.2% of intervals observed).

The most frequently observed disruptive behavior based on classroom type is reported in Table 8. The same top three disruptive behaviors which were observed across all six classrooms were also observed most frequently in each of the three classroom types, however the rankings differed. In general education classrooms the three most commonly observed disruptive behaviors included Inappropriate Behavior (37.3%), Talking Out (30.1%), and Out of Area (20.9%). The majority of disruptive behavior intervals in at-risk classrooms were coded Talking Out (65.5%), followed by Out of Area (14.4%), and then Inappropriate behavior (9.8%). Students in at-risk classrooms were more frequently observed to shout out during instructional time and left the area or sat inappropriately (e.g., up on knees or standing when expected to sit) and distracted themselves or a neighbor for fewer intervals compared to general education classrooms. In special education classrooms, the majority of disruptive behavior intervals were coded Talking Out (36.4%), followed closely by Out of Area (30.4%), and then Inappropriate Behaviors (8.7%). The fewest percentage of Inappropriate Behavior intervals were observed in special education (8.7%) and at-risk (9.8%) classrooms.

The least frequently observed disruptive behaviors based on classroom type are reported in Table 9. Both general education and at-risk classrooms have several disruptive behaviors that were never observed (i.e., Demanding, Cheating, and Aggression). Whining, Negativism, and Crying were also never coded in general education classroom. In addition, to the disruptive behavior categories mentioned above, Destructive, Yelling, and Noncompliance behaviors were not coded in at-risk classrooms.

There were some disruptive behavior categories that were also never observed in the special education classrooms, such as Aggression and Cheating. Other disruptive behaviors that were observed infrequently included Destructive (1.4% of disruptive intervals), Demanding (1.7% of disruptive intervals), Self-stimulation (2.0% of disruptive intervals), and Yelling (3.5% of disruptive intervals).

Discussion

The current study examined the occurrence of externalizing behavior exhibited by preschool students in general, at-risk, and special education preschool classrooms. Across all six classrooms, off-task and disruptive behaviors were equally observed during approximately 14% of the observation intervals. A higher percentage of off-task and disruptive behavior intervals were observed in special education classrooms compared to general and at-risk classrooms. Significant differences were found between the percentage of disruptive behavior in special education and general education classrooms and at-risk and general education classrooms. Percentages of off-task behavior in general, at-risk, and special education classrooms were not significantly different. Across all preschool classrooms the three most frequently observed disruptive behaviors were Talking Out, Out of Area, and Inappropriate Behavior. Having direct observational data on the natural occurrence of preschool students' off-task and disruptive behavior within preschool classrooms, may prove helpful when promoting proactive and preventative strategies which encourage preschool students' adaptive and appropriate behaviors.

First, the results from this study support the prediction that externalizing behaviors would be high for preschool-aged children, relative to students in older grades. The percentage of off-task (14.2%) and disruptive behavior (14.6%) intervals were higher

across the six preschool classrooms sampled in this study compared to a sample of 28 K-5th grade general education classrooms where 9% of observation intervals were coded as off-task and 5% were coded as disruptive (Floress, Jenkins, Reinke, Baij, under review). It is likely that the occurrence of externalizing behaviors among preschool-aged children in preschool classrooms is developmentally typical. Researchers have reported higher rates hyperactivity, impulsivity, noncompliance, and aggression among preschool-aged children in general (Gartstein, Putnam, & Rothbart, 2012; McMahon & Forehand, 2005), but the direct observation of the natural occurrence of preschool-students' externalizing behavior in the classroom had not been previously reported.

Results from this study also found significant differences between the occurrence of disruptive behaviors within the special education classroom settings when compared to both the general education and at-risk classrooms. These results are consistent with the findings from Maggin et al. (2011) in relation to the number of behavioral issues present in self-contained special education classrooms versus general education classrooms with K-4th grade classroom settings. Maggin et al. found that general education classrooms demonstrated 2.6 disruptive behaviors per hour, while the self-contained special education classrooms displayed 4.8 disruptive behaviors per hour, which is significantly lower than the disruptive behavior intervals reported per hour for this study (range 41.7 – 71.3). The drastic difference between these findings may be in part due to the fact that Maggin et al. reported "behaviors per hour", while this study focused on "intervals per hour". These findings suggest that while all preschool children are likely to benefit from proactive and preventative approaches to increasing adaptive and appropriate behavior,

preschool students in special education classrooms likely need even more proactive and preventative programing.

There were no significant differences between the occurrences of off-task behaviors across the three classroom types, with percentages of off-task intervals ranging from 10.9% to 18.2%. All of the observations were conducted during whole-group instructional time, where students were directed to sit and attend to a teacher-led lesson. For many students, preschool is the first time they are exposed to structured, school expectations, like sitting with the class and raising their hand to speak. This may be one reason why off-task behavior was similar across all six preschool classrooms regardless of classroom type. In addition, all preschool-aged children may have difficulty attending for longer, structured periods of time and ignoring potential distractors. Students are more likely to display off-task behaviors during whole-group settings as it places greater demands on the teacher's ability to regulate and manage classroom behaviors (Rimm-Kaufman et al. 2005). Young children struggle to control off-task behaviors when there are less opportunities for individual attention. In addition, young children may demonstrate increased off-task behavior when there is uncertainty of behavioral expectations. Off-task behaviors are less likely when students are highly involved in a lesson (e.g., songs with motions, class-wide participation, etc.), as opposed to activities where there are fewer opportunities to respond (e.g., singular student response) (Wakschlag et al., 2005). Considering this, it is possible that lower estimates of off-task behavior may have been observed during unstructured free-play.

The last finding to discuss involves the most commonly observed disruptive behaviors across all classrooms. These behaviors included Talking Out, Out of Area, and

Inappropriate Behaviors. Students in the at-risk and special education classrooms were commonly observed to talk out, which included shouting out an answer or not raising their hand and waiting to be called on. This is likely related to impulsivity commonly observed in young children, as well as a lack of familiarity with the expectation of raising your hand to speak. Because children are not typically expected to raise their hand to speak at home, there are fewer opportunities to practice this skill prior to preschool enrollment. Out of area typically involved students lying on their back or stomach on the carpet, as opposed to sitting with their legs crossed and hands in their lap. There were also times when students would physically remove themselves from the carpet/designated area and walk around the room. This may be related to the high energy levels and hyperactivity commonly reported among preschool-aged children (Sonuga-Barke, Auerbach, Campbell, Daley, & Thompson, 2005). Lastly, inappropriate behaviors included "any physically active or repetitive behavior that is or may become disruptive to others. Examples include drumming loudly on floor/wall, making funny noises, teasing another student, or playing with objects in a way that is distracting to classmates". This included manipulating objects hung around the room, such as instructional posters, as well as fidgeting with personal items or objects (shoes, hair, etc.) that other students may find distracting. In total, these three behavior categories made up 83.1% of the total externalizing intervals observed (Range 75.5% - 89.7%). Given the high occurrence of these behaviors, it may be beneficial to provide proactive strategies for establishing more appropriate behaviors, such as targeting an increase in hand-raising, both to answer a question or be excused from one's assigned area, as well as having reasonable expectations for the length of time for which the students are expected to sit and attend.

Least common disruptive behaviors varied across settings, but included Demanding, Cheating, and Aggression. Whining, Negativism, and Crying were not observed within the general education classrooms; while at-risk classrooms were not coded for Destructive, Yelling, and Noncompliant behaviors. Special education classrooms demonstrated no occurrence of Aggression or Cheating. A commonality amongst all of these settings were the lack of Aggressive and Cheating behaviors. The lack of cheating behaviors is likely due to the lack of individual work, because the majority of the instructional time observed included verbal participation as opposed to producing correct answers on paper. Future research might consider eliminating this coding category as it may not be appropriate for this age-group due to lack of opportunity to cheat.

Noncompliance and aggression are cited as two common behavior problems observed among preschool-aged children (Gartstein, Putnam, & Rothbart, 2012; McMahon & Forehand, 2005). However, aggression and noncompliance were not observed in the six classrooms sampled. It is hypothesized that aggressive behaviors were not observed in any of the classrooms because observations took place during structured, whole-group instruction as opposed to free play or small group activities. It is possible that aggression may have been observed had observations taken place during free play activities, which are less structured and encourage social interactions with other students. Because children at this age have a difficult time regulating their emotions or lack experience and skill in dealing with social conflicts (e.g., sharing a toy or settling a dispute) it is likely that aggression may have been observed during less structured class time.

Limitations

The limitations of this study included small sample size and potential observer bias. Because a small sample size limits the availability of a representative sample, the results from this study cannot be generalized to the population as a whole. In other words, due to the data collection occurring in within a small region in Central Illinois, one should not assume that the population sampled can be generalized to the national population as a whole. Careful interpretation and application of results must be considered when analyzing a study with a small sample size, particularly in the case of a Type II error. Type II errors, or "false negatives" occur when the results indicate that there is no difference between groups when a larger sample size may indicate differences (Banerjee, Chitnis, Jadhav, Bhawalkar, & Chaudhury, 2009). In other words, with a larger sample size there may have been a more significant difference in the occurrence of off-task behaviors between different classroom types. Given additional time and resources, it would be beneficial to continue collecting data with multiple preschool classrooms in order to increase the reliability of the conclusions found in this study.

A second limitation is the possibility of observer bias. Observer bias occurs when researchers subconsciously focus on identifying behaviors that are congruent with their hypotheses (Hammer, du Prel, Blettner, 2009). Because the observers were looking for examples of disruptive behaviors, these behaviors may have been more salient because of observer bias. The potential for an observer bias may lead to inflated reports of externalizing behaviors within the study. Operational definitions were constructed and referenced as needed in order to obtain reliable identification of behaviors. Training for agreement between multiple observers was also done in order to increase agreement, as

measured by Kappa. Observers blind to the hypotheses of the study may be beneficial to minimize observer bias. The opportunity of re-training of observers throughout the data collection process may be necessary in order to prevent unnecessary error from being introduced into the study.

Future Research

In the future, this study should be replicated with a larger sample size in order to provide generalizable findings to other populations. Presently, the sample from which data were collected provided findings applicable to populations within Central Illinois. The recruitment of additional classrooms across all three settings would be beneficial to continue to gather information about the developmentally typical vs. atypical rates of externalizing behaviors. It may also be beneficial to recruit observers who are blind to the hypotheses of the study in order to minimize potential observer biases.

It would be beneficial to conduct observations during different settings (e.g., small group, free choice, etc.) in order to compare various behaviors observed when behavioral expectations differ. During these observations, there may be an increase in aggressive behaviors because of the increase of socialization and different demands being placed on the student. The behavior category of Cheating may be removed during further research endeavors due to the lack of independent work that is typically required within a preschool classroom.

The overarching purpose of this study was to measure the prevalence of externalizing behaviors within preschool-aged classrooms in order to support the hypothesis that the occurrence of these behaviors are developmentally appropriate, and to an extent, to be expected. Armed with this knowledge, an emphasis should be placed on

training all preschool teachers (i.e., at-risk, special education, and general education) strategies for proactively managing externalizing behaviors, which can lead to improving academics, the classroom atmosphere and overall increasing prosocial interactions as they prepare to enter formal schooling. Ritz et al. (2014) suggest that proactive approaches can be particularly beneficial for combatting typical externalizing behaviors within the preschool classroom. Strategies such as school-wide positive behavior intervention systems, which focus on promoting positive behaviors and increasing academic engagement for all students can be beneficial for young students who are just beginning to learn what behaviors are expected from them while at school. Group contingencies, coupled with effective reinforcers, serve to address class-wide behavioral expectations and encourage social cooperation. Hiralall and Martens (1998) discuss the need for preschool teachers to be well-versed in effective instructional and classroom management techniques, with an emphasis on providing clear directives and following up with immediate and meaningful feedback. By identifying the most frequently observed externalizing behaviors occurring within preschool classrooms, teachers can better tailor their proactive and preventative classroom management strategies, ideally decreasing extreme punitive measures (e.g., expulsion) and allowing preschool students to continue to learn appropriate behaviors before entering Kindergarten.

Overall, this study adds valuable information to the prevalence of externalizing behaviors within preschool-aged classrooms. It provides useful preliminary information about the developmentally typical occurrence of off-task and disruptive behaviors among preschool-aged students with the hopes of encouraging additional training for teachers in the areas of proactive and preventative classroom management strategies.

References

Achenbach, T. M., & Edelbrock, C. S. (1981) Behavioral problems and competencies reported by parents of normal and disturbed children aged four through sixteen. *Monographs of the Society for Research in Child Development, 46*, 1-82.

Alter, P.J., Conroy, M.A., Mancil, G.R., & Haydon, T. (2008). A comparison of functional behavior assessment methodologies with young children: Descriptive methods and functional analysis. *Journal of Behavioral Education, 17*, 200-219. doi: 10.1007/s10864-008-9064-3

Banerjee, A., Chitnis, U. B., Jadhav, S. L., Bhawalkar, J. S., & Chaudhury, S. (2009). Hypothesis testing, type I and type II errors. *Industrial Psychiatry Journal, 18*(2), 127–131. http://doi.org/10.4103/0972-6748.62274

Barnett, W. S., & Masse, L. N. (2007). Early childhood program design and economic returns: Comparative benefit-cost analysis of the Abecedarian program and policy implications, *Economics of Education Review, 26*, 113-125. doi: 10.1016/jeconedurev.2005.10.007

Bear, G.G., Cavalier, A., & Manning, M.A. (2002). Best practices in school discipline. In G.G. Bear, with M.A. Manning & A. Cavalier, *Developing self-discipline and preventing and correcting misbehavior.* Allyn & Bacon: Boston, MA.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences, 2nd ed.* Hillsdale, New Jersey: Erlbaum.

Dobbs, J., Arnold, D. H., & Doctoroff, G. L. (2004). Attention in the preschool classroom: The relationships among child gender, child misbehavior, and types of

teacher attention. *Early Child Development and Care, 174*, 281-295. doi: 10.1080/0300443032000153598

Egger, H.L. & Angold, A. (2006) Common emotional and behavioral disorders in preschool children: Presentation, nosology, and epidemiology. *Journal of Child Psychology and Psychiatry, 47*, 313-337. doi: 10.1111/j.1469-7610.2006.01618.x

Eyberg, S.M., & Pincus, D. (1999). *Eyberg Child Behavior Inventory and Sutter-Eyberg Student Behavior Inventory-Revised: Professional Manual.* Odessa, FL: Psychological Assessment Resources.

Floress, M.T., Jenkins, L.N., Reinke, W., & Baij, L. (under review). Direct behavioral classroom observations: Behavior-specific praise and classroom-wide behavior. Submitted to the *Journal of School Psychology.*

Gartstein, M. A., Putnam, S. P., & Rothbart, M. K. (2012). Etiology of preschool behavior problems: Contributions of temperament attributes in early childhood. *Infant Mental Health Journal, 33*, 197-211. doi: 10.1002/imhj.21312

Gebbie, D., Ceglowski, D.,Taylor, L, & Miels, J. (2012). The role of teacher efficacy in strengthening classroom support for preschool children with disabilities who exhibit challenging behaviors. *Early Childhood Education Journal, 40*, 35-46. doi: 10.1007/s10643-011-0486-5

Gilliam, W. S. (2005). Prekindergarteners left behind: Expulsion rates in state prekindergarten programs. *FCD Policy Brief Series No. 3.*

Gilliam, W.S., & Shahar, G. (2006). Preschool and child care expulsion and suspension: Rates and predictors in one state. *Infants and Young Children, 19*, 228-245. doi: 10.1097/00001163-200607000-00007

Glascoe, F.P. (1998). Collaborating with parents, Using parents' evaluation of developmental status to detect and address development and behavioral problem. Nashville, TN: Ellsworth & Vandermeer Press LLC.

Gray, S. A. O., Carter, A. S., Briggs-Gowan, M. J., Hill, C., Danis, B., Keenan, K. & Wakschlag, L. S. (2012). Preschool children's observed disruptive behavior: Variations across sex, interactional context, and disruptive psychopathology. *Journal of Child Clinical and Adolescent Psychology, 41*, 499-507. doi: 10.1.080/15374416.2012.675570

GreatSchools. (2015). Public and Private School Ratings. Retrieved November 15, 2015, from http://www.greatschools.org.

Halle, T., Forry, N., Hair, E., Perper, K., Wandner, J., & Vick, J. (2009). Disparities in early learning and development: Lessons from the Early Childhood Longitudinal Study – Birth Cohort (ECLS-B). *The Council of Chief State School Officers,* 1-7.

Hammer, G. P., du Prel, J.-B., & Blettner, M. (2009). Avoiding Bias in Observational Studies: Part 8 in a Series of Articles on Evaluation of Scientific Publications. *Deutsches Ärzteblatt International, 106*(41), 664–668. http://doi.org/10.3238/arztebl.2009.0664

Hill, A. L., Degnan, K. A., Calkins, S. D., & Keane, S. P. (2006). Profiles of externalizing behavior problems for boys and girls across preschool: The roles of emotion regulation and inattention. *Developmental Psychology, 42*, 913-928. doi: 10.1037/0012-1649.42.5.913

Hiralall A.S. & Martens, B.K. (1998). Teaching classroom management skills to preschool staff: The effects of scripted instructional sequences on teacher and

student behavior. *School Psychology Quarterly, 13*, 94-115. doi: 10.1037/h0088976

Illinois School Report Card. (2015). eReport Card Public Site. Retrieved November 15, 2015, from http://webprod.isbe.net/ereportcard/publicsite/getsearchcriteria.asp

Ingersoll, R.M. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal, 38*, 499-534. doi: 10.3102/00028313038003499

Jacobs, J.R., Boggs, S.R., Eyberg, S.M., Edwards, D., Durning, P., Querido, J.G., et al. (2000). Psychometric properties and reference point data for the Revised Edition of the School Observation Coding System. *Behavior Therapy, 31*, 695–712. doi: 10.1016/S0005-7894(00)80039-8

Jazaar, M., Lambert, R.G. & O'Donnell, M. (2007). An investigation of elementary teacher stress to guide educational administrators in curbing the early career departure of elementary school teachers. L. K. Lemasters and Papa, R. (Eds.), At the tipping point: Navigating the course for the preparation of educational administrators (pp. 59-72). Lancaster, PA: DEStech Publications, Inc.

Katsiyannis, A., Zhang, D., & Conroy, M.A. (2003). Availability of special education teachers: Trends and tests. *Remedial and Special Education, 24*, 246-253. doi: 10.1177/07419325030240040701

Kazdin, A. E. (2003). Psychotherapy for children and adolescents. *Annual Review of Psychology, 54*, 253-277. doi: 10.1146/annurev.psych.54.101601.145105

Keenan, K. et al. (2011) Predictive validity of DSM-IV oppositional defiant and conduct disorders in clinically referred preschoolers. *Journal of Child Psychology and Psychiatry, 52*, 47-55. doi: 10.1111/j.1469.7610.2010.02290.x

Keenan K. & Wakschlag L.S. (2004). Are oppositional defiant and conduct disorder symptoms normative behaviors in preschoolers? A comparison of referred and nonreferred children. *American Journal of Psychiatry, 161*, 356–358. doi: 10.1176/appi.ajp.161.2.356

Lamy, C.E. (2013). How preschool fights poverty. *Educational Leadership, 70*, 32-36.

Landis, J.R. & Koch, G.G. (1977).The measurement of observer agreement for categorical data. *Biometrics, 33*, 159-174. doi: 10.2307/2529310

Maggin, D.M., Wehby, J.H., Moore Partin, T.C., Robertson, R., & Oliver, R.M. (2011). A comparison of the instructional context for students with behavioral issues enrolled in self-contained and general education classroom settings. *Behavioral Disorders, 36*, 84-99.

McMahon, R. J., & Forehand, R. L. (2005). *Helping the noncompliant child: Family-based treatment for oppositional behavior.* New York: The Guilford Press.

Merrett, F. & Wheldall, K. (1993). How do teachers learn to manage classroom behaviour? A study of teachers' opinions about their initial training with special reference to classroom behaviour management. *Educational Studies, 19*, 91-106. doi: 10.1177/1356336X9700300202

Nichols, A.S., & Sosnowsky, F.L. (2002). Burnout among special education teachers in self-contained cross-categorical classrooms. *Teacher Education and Special Education, 25*, 71-86. doi: 10.1177/088840640202500108

Reynolds, C.R. and Kamphaus, R.W. 2006. BASC-2: Behavior Assessment System for Children, Second Edition. Upper Saddle River, NJ: Pearson Education, Inc.

Richman, N., & Grham, P.J. (1971). A behavioural screening questionnaire for use with three-year-old children. Preliminary findings. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 12*, 5-33. doi: 10.1111/j.1469-7610.1971.tb01047.x

Rimm-Kaufman, S.E., La Paro, K.M., Downer, J.T., & Pianta, R.C. (2005). The contribution of classroom setting and quality of instruction to children's behavior in kindergarten classrooms. *The Elementary School Journal, 105*, 377-394. doi: 10.1086/429948

Ritz, M., Noltemeyer, A., Davis, D., & Green, J. (2014). Behavior management in preschool classrooms: Insights revealed through systematic observation and interview. *Psychology in the Schools, 51*, 181-197. doi: 10.1002/pits.21744

Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005). *Lifetime effects: The HighScope Perry Preschool study through age 40.* (Monographs of the HighScope Educational Research Foundation, 14). Ypsilanti, MI: HighScope Press.

Scott, T.M., Alter, P.J., & Hirn, R.G. (2011). An examination of typical classroom context and instruction for students with and without behavioral disorders. *Education and Treatment of Children, 34*, 619-641. doi: 10.1353/etc.2011.0039

Scott, T.M., Park, K.L., Swain-Bradway, J. & Landers, E. (2007). Positive behavior support in the classroom: Facilitating behaviorally inclusive learning

environments. *International Journal of Behavioral Consultation and Therapy, 3*, 223-235. doi: 10.1037/h0100800

Shumate, E.D. & Wills, H.P. (2010). Classroom-based functional analysis and intervention for disruptive and off-task behaviors. *Education and Treatment of Children, 33*, 23-48.

Sonuga-Barke, E.J.S., Auerbach, J, Campbell, S.B., Daley, D., & Thompson, M. (2005). Varieties of preschool hyperactivity: Multiple pathways from risk to disorder. *Developmental Science, 8*, 141-150. doi: 10.1111/j.1467-7687.2005.00401.x

Stormont, M. (2002). Externalizing behavior problems in young children: Contributing factors and early intervention. *Psychology in the Schools, 39*, 127-138. doi: 10.1002/pits.10025

Tremblay, R. E. (2010). Developmental origins of disruptive behaviour problems: the 'original sin' hypothesis, epigenetics and their consequences for prevention. *Journal of Child Psychology and Psychiatry, 51*, 341-367. doi: 10.1111/j.1469-7610.2010.02211.x

Tucker-Drob, E. M. & Harden, K. P. (2013). Gene-by-preschool interaction on the development of early externalizing problems. *The Journal of Child Psychology and Psychiatry 54*, 77-85. doi: 10.1111/j.1469-7610.2012.02578.x

Volpe, R.J., McConaughy, S.H., & Hintze, J.M. (2009). Generalizability of classroom behavior problem and on-task scores from the Direct Observation Form. *School Psychology Review, 38*, 382-401.

Wakschlag, L.S. et al. (2005). Defining the "disruptive" in preschool behavior: What diagnostic observation can teach us. *Clinical Child and Family Psychology Review, 8*, 183-201. doi: 10.1007/s10567-005-6664-5

Williams, K.L., Noell, G.H., Jones, B., & Gansle, K. (2012). Modifying students' classroom behaviors using an electronic Daily Report Card. *Child and Family Behavior Therapy, 34*, 269-289. doi: 10.1080/07317107.2012.732844

Table 3.

Percentage of off-task and disruptive behavior intervals by individual class

	Off-task Behavior		Disruptive Behavior	
Class	Mean	Range	Mean	Range
General 1	16.2	0.0 – 50.0	8.8	0.0 – 20.0
General 2	12.9	1.7 – 30.0	14.4	6.7 – 30.0
At-risk 1	10.9	0.0 – 38.3	8.8	0.0 – 56.7
At-risk 2	12.4	1.7 – 27.8	15.4	0.0 – 26.7
Special Ed 1	18.2	1.7 – 23.8	22.9	0.0 – 27.8
Special Ed 2	14.8	0.0 – 36.7	17.0	0.0 – 28.3
Total	14.2	0.0 – 50.0	14.6	0.0 – 56.7

Table 4.

Average percentage of off-task and disruptive behavior intervals by classroom type

	Off-task Behavior		Disruptive Behavior	
Class Type	Mean	Range	Mean	Range
General	14.6	0.0 – 50.0	11.4	0.0 – 30.0
At-risk	11.7	0.0 – 38.3	12.5	0.0 – 28.3
Special Ed	16.4	0.0 – 36.7	19.7	0.0 – 56.7

Table 5.

Average number of off-task and disruptive behavior intervals per hour by individual class

	Off-task Behavior		Disruptive Behavior	
Class	Mean	Range	Mean	Range
General 1	54.7	0 - 180	36.2	0 - 72
General 2	43.9	6 - 114	53.1	13 - 108
At-risk 1	32.5	6 - 86	29.0	0 - 100
At-risk 2	55.3	0 - 132	68.8	0 -120
Special Ed 1	65.0	0 - 138	84.2	36 - 204
Special Ed 2	57.9	0 -102	70.0	0 - 96

Table 6.

Average number of off-task and disruptive behavior intervals per hour by class type

	Off-task Behavior		Disruptive Behavior	
Class Type	Mean	Range	Mean	Range
General	53.7	0 - 180	41.8	0 - 114
At-risk	58.9	0 - 132	45.9	0 - 120
Special Ed	61.4	0 - 138	71.3	0 - 204

Table 7.

Top 3 most observed disruptive behavior across all six preschool classrooms

Preschool Classrooms		
Rank	DB Type	% of Int.
1	Talking Out	43.2
2	Out of Area	23.7
3	Inappropriate	16.2

Table 8.

Top 3 most observed disruptive behavior based on classroom type

	Classroom Type					
	General Education		At-risk		Special Education	
	DB Type	% of Int.	DB Type	% of Int.	DB Type	% of Int.
1	Inappropriate	37.3	Talking Out	65.5	Talking Out	36.4
2	Talking Out	30.1	Out of Area	14.4	Out of Area	30.4
3	Out of Area	20.9	Inappropriate	9.8	Inappropriate	8.7

*DB = disruptive behavior

Table 9.

Least frequently observed disruptive behavior intervals

Classroom Type					
General Education		At-risk		Special Education	
DB Type	% of Int.	DB Type	% of Int.	DB Type	% of Int.
Whining	0	Destructive	0	Aggression	0
Negativism	0	Yelling	0	Cheating	0
Aggression	0	Aggression	0	Destructive	1.4
Cheating	0	Cheating	0	Demanding	1.7
Demanding	0	Demanding	0	Self-Stimulation	2.0
Crying	0	Noncompliance	0	Yelling	3.5

Appendix A

Observation Form

Preschool Student Observation Form: Disruptive Behavior

Observer:_____ Status: *(circle one)* Primary or Reliability Partner: _____

Date:_____ School:_____ Teacher ID: _____

	Minute 1							Minute 2							Minute 3							Minute 4							Minute 5						
	:10	:20	:30	:40	:50	:60	:10	:20	:30	:40	:50	:60	:10	:20	:30	:40	:50	:60	:10	:20	:30	:40	:50	:60	:10	:20	:30	:40	:50	:60	:10	:20	:30	:40	:50
Instruct / Play	1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6	
Inappropriate																																			
Noncomply																																			

	Minute 6							Minute 7							Minute 8							Minute 9							Minute 10						
	:60	:10	:20	:30	:40	:50	:60	:10	:20	:30	:40	:50	:60	:10	:20	:30	:40	:50	:60	:10	:20	:30	:40	:50	:60	:10	:20	:30	:40	:50	:60	:10	:20	:30	:40
Instruct / Play	1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6	
Inappropriate																																			
Noncomply																																			

- (✓) **Inappropriate behavior includes:** whine (W) destructive (De) talks out (TO) self-stimulation (SS) yell (Y) negativism (N) Tantrum (Ta) disruptive (Di) cheating (Ch) demanding (Dm) cry (C) out of area (OA)
- (✓) **Noncompliant behavior:** is coded following any refusal by a child to comply with a request made by a teacher or adult. It is also coded if the child does not attempt to perform or stops attempting to perform the requested behavior within 5-seconds following the request. Shaking head "no," verbal refusal, touching something the child was told not to touch.
- (O around interval #) **Off Task:** Child is looking away from desk work or looking away from the teacher at the front of the class, or looking away from teacher instruction (e.g., smart board). Examples include, staring at the ceiling or looking at a visitor in the class, or staring off where the student's eye gaze is not directed toward their work, the teacher, or instruction. If a student is whispering to a neighbor and therefore **Talking out of Order** is marked, **Off Task** is automatically marked as well.

TOTAL OT:_____ **TOTAL DB:**_____ **TOTAL TIME:**_____ **TOTAL INTERVALS:**_____

Appendix B

Disruptive Behavior Operational Definitions

Whining	Words and sounds uttered by the child in a slurring, nasal, high-pitched voice
Crying	Inarticulate utterances of distress (e.g., audible weeping) that may or may not be accompanied by tears
Yelling	Loud screeching, screaming, or shouting. The sound must be loud enough so that it is clearly above the intensity of normal indoor conversation. Yelling was not coded when class-wide games or other, purposefully noisy activities, were being conducted.
Destructive behavior	The occurrence of a child damaging or destroying an object or threatening to damage an object, not within the context of play
Aggressive behavior	Includes examples such as fighting, kicking, slapping, hitting, as well as threatening to do any of these behaviors
Negativism	Verbal or nonverbal expression of a negative attitude, including a negative tone of voice or negative body language
Self-stimulation	Repetitive physical body movements that might be harmful to the child's ability to attend to or complete a task
Demanding attention	Inappropriate verbal or nonverbal bids for attention from the teacher or other students, including verbal requests for attention as well as nonverbal actions
Inappropriate behavior	Any physically active or repetitive behavior that is or may become disruptive to others. Examples include drumming loudly on

	floor/wall, making funny noises, teasing another student, or playing with objects in a way that is distracting to classmates
Talking out of order	Any talking when the class has been instructed to be silent unless called on to speak
Being out of area	Identified when child leaves the area to which he or she is assigned, without permission
Cheating	Borrowing from another child's work when such behavior is clearly not allowed
Noncompliance	Any refusal by a child to comply with a request made by a teacher or adult. If the child does not attempt to perform or stops attempting to perform the requested behavior within 5-seconds following the request, shaking head 'no', verbal refusal [or] touching something the child was told not to touch.

Appendix C

CONSENT TO PARTICIPATE IN RESEARCH

Preschool Teachers' Use of Behavioral Skills in the Classroom and Student Classroom Behavior

You are invited to participate in a research study conducted by Dr. Margaret Floress, Jessica Berlinghof, and Rebecca Rader from the Psychology Department at Eastern Illinois University.

Your participation in this study is entirely voluntary. Please ask questions about anything you do not understand, before deciding whether or not to participate. You have been asked to participate in this study because you teach children in the preschool setting.

- **PURPOSE OF THE STUDY**

The purpose of the study is to examine teachers' use of behavioral skills in the preschool classroom. Research suggests that specific teacher skills are linked to better student outcomes, but there is little information about how often teachers use these skills in general. Furthermore, there is limited information examining these skills within preschool classrooms or relating them to measures of student behavior.

The goal of the current study is to determine the typical, or normative, rate of behavioral skills used among preschool teachers during classroom instruction. In addition, we are interested in whether there is a relationship between the rate of behavioral skills used and student classroom behavior. We are not asking you to do anything differently. We simply want to count the number of times you use specific behavioral skills. Our goal is to help educators, administrators, and researchers understand on average how frequently teachers use specific behavioral skills within a preschool classroom setting and whether or not this rate is related to measures of student classroom behavior.

- **PROCEDURES**

If you volunteer to participate in this study, you will be asked to:

1) Complete 2 rating scales for each child in your classroom. First we will ask you how many students are enrolled in your class, and then we will provide you with numbered rating scale "packets" for each student. The packets can be completed on your own time and should take approx. 5-10 minutes to complete. Once the packets are completed and returned to the researcher, you will complete an EIU finance form and then be provided $125 to compensate your time and efforts.
2) Allow research assistants to complete approximately ten, 30 minute observations in your classroom. The trained research assistants will sit in an inconspicuous place in your classroom and will quietly and unobtrusively observe. Research assistants will be measuring teachers' use of behavioral skills as well as student behavior.
3) Provide the researchers with a typical weekly schedule. This schedule will be used to schedule observations. We will check with you ahead of time to double check that the observation time is satisfactory.

- **POTENTIAL RISKS AND DISCOMFORTS**

It is unlikely that you will experience significant physical or psychological discomfort from participating in the study. However, research assistants will be observing your classroom, so there may be some degree of discomfort associated with being observed. You will be completing brief rating scales for the students in your classroom, which could be tiresome as well.

Student rating scales and observational data will be anonymous and only identification numbers will be used. If requested, general results regarding the study can be provided to participants or school administrators, but information regarding observations of a specific classroom will not be disclosed. Any information will be combined across other preschool teachers participating in the study.

- **POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY**

There appear to be several benefits to you and to the field of education in general. First, sometimes participants in these kinds of studies enjoy being part of research. It can be exciting to be involved in research that is geared towards helping other educators and researchers have a better understanding of the way that preschool classrooms work. Additionally, when looking at the research about teachers' use of behavioral skills in the general education classroom, there is a very limited amount of information available. There have been a few studies examining behavioral skills in preschool classrooms, but hardly any information exists about normative levels of behavioral skills. This study is an initial step in what is hopefully a study that will be conducted across the nation.

- **INCENTIVES FOR PARTICIPATION**

You will receive $125 for participating in the study. A check will be provided from EIU once all rating scales have been collected and you have agreed to the observation schedule. If you receive the $125, but the classroom observations are not complete, research assistants will continue to observe in your classroom until the observations are complete.

- **CONFIDENTIALITY**

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by several means. First, rating scales that you complete for the students in your classroom will not contain children's names. Identification numbers will be used to conceal the identity of children and the ratings that are provided for them. Second, you will be assigned an identification number that will be used to collect observational data.

The rating scales will be housed inside a locked filing cabinet in the office of one of the researchers for approximately 3 years. After three years, all rating scales will be destroyed.

- **PARTICIPATION AND WITHDRAWAL**

Participation in this research study is voluntary and not a requirement or a condition for being the recipient of benefits or services from Eastern Illinois University or any other organization sponsoring the research project. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind or loss of benefits or services to which you are otherwise entitled.
There is no penalty if you withdraw from the study and you will not lose any benefits to which you are otherwise entitled.

- **IDENTIFICATION OF INVESTIGATORS**

Margaret Floress, Ph.D.
217-581-3523
mfloress@eiu.edu

Jessica Berlinghof, B.A.
847-293-8123
jrberlinghof@eiu.edu

Rebecca Rader, B.S., B.A.
636-288-7671
rarader@eiu.edu

- **RIGHTS OF RESEARCH SUBJECTS**

If you have any questions or concerns about the treatment of human participants in this study, you may call or write:

Institutional Review Board
Eastern Illinois University
600 Lincoln Ave.
Charleston, IL 61920
Telephone: (217) 581-8576
E-mail: eiuirb@www.eiu.edu

You will be given the opportunity to discuss any questions about your rights as a research subject with a member of the IRB. The IRB is an independent committee composed of members of the University community, as well as lay members of the community not connected with EIU. The IRB has reviewed and approved this study.

I voluntarily agree to participate in this study. I understand that I am free to withdraw my consent and discontinue my participation at any time. I have been given a copy of this form.

_____
Printed Name of Participant

_____ _____
Signature of Participant Date

I, the undersigned, have defined and fully explained the investigation to the above subject.

_____ _____
Signature of Investigator Date

Appendix D

Teacher Demographic Questionnaire

Your Name: _____

Sex (circle): Male Female

Age: _____

Racial Background (circle): American Indian/ Alaska Native | Asian | Black or African American | Native Hawaiian/ Other Pacific Islander | Caucasian/Whit

Other: _____

Do you have your teaching certificate (circle)? Yes No

I am a certified (circle): General Education Teacher | Special Education Teacher | Specials Teacher | Teacher's Aid

Other: _____

Years of Teaching Experience: _____

Highest Educational Degree Obtained (circle): Two Year College Degree | Four Year College Degree | Master's Degree | Doctoral Degree

Special Training: For example: Crisis management training (member of school's crisis management team), attended Autism Awareness Workshop, PBIS training, or received special training in reading intervention.

_____

Location of Training / Provided by: _____

Time of Class (circle): Morning Afternoon

My Classroom includes (circle):	**Only general ed. students**	**Mostly general ed. students** and some special ed. Students	**An equal mix** of general ed. students and special ed. students	**Mostly special ed. students** and some general ed. students	**Only special ed Students**

Number of Teacher's Aides in Classroom: _____

Please describe briefly the type of student needs that make up your classroom:

_____

_____

_____

How would you rate the behavioral difficulty of your class (as a whole) compared to other classes you have taught i the past? (circle answer below)

1	**2**	**3**	**4**	**5**
Much less difficult	Somewhat less difficult	Average difficulty	Somewhat more difficult	Much more difficult