

THE INFLUENCES OF CREATIVE MOVEMENT ACTIVITIES IN THE PRESCHOOL
CLASSROOM AND CHILDREN'S ABILITY TO MOVE
ON CHILDREN'S SOCIAL COMPETENCE

by

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ABSTRACT

The current study examined the relationship between parent- and teacher-reported social competence of preschool children and the children's observed involvement in creative movement activities in their classroom. A sample of 51 children (age: $M = 53.32$ $SD = 7.19$; months), from a university affiliated preschool were observed during regularly scheduled music and movement activity times with their lead teachers. Children and teachers were videotaped during these activities and coded for their behaviors. After controlling for child age, child gender, family income, and parent education, the strongest predictor of children's social competence was their physical ability to move. Children's observed creative movement was also a significant predictor of their social competence reported by teachers. The current study also found that during music and movement activities, when teachers used instructional media, verbal instruction, and physical cues, children were more likely to participate in the movement activity, but not engage in creative movement. Significant differences in children's movement participation and teachers' behaviors were also found among the four classrooms that participated in the study.

DEDICATION

This thesis is dedicated to those who have always believed in me and to the support group I have been blessed with over the past two years. Their constant friendship, encouragement, prayers, and love have helped me conquer this small mountain.

LIST OF ABBREVIATIONS AND SYMBOLS

N	Total sample size
M	Mean: the sum of a set of measurements divided by the number of measurements in the Set
SD	Standard deviation
χ^2	Chi-square test statistic or Chi-square distribution
F	Coefficient of determination
B	Partial regression coefficient
SE	Standard error
t	Computed value of t test
α	Cronbach's index of internal consistency
$<$	Less than
$=$	Equal to

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These past two years have been the most challenging and life changing years of my life, but I have been blessed with the most amazing support system. My parents have supported every single dream that I have ever dreamt; they have loved and encouraged me, and I can never truly express how much that means to me. The value of true friendship cannot be put into words, and each of my friends have been there for me to offer love, prayer, support, hugs, listening ears, laughter, and many wonderful memories. They are all such a blessing to me, and without them this would have been a near impossible feat. I am also grateful to the women in my life who have offered me listening ears, guidance, hugs, and encouraging words when I needed them the most: Dr. Maria Hernandez-Reif, Mrs. Malissa Ligon, and Mrs. Kelly Avery. I would also like to thank my best friend, Erin Farella, for her time and assistance with coding videos. I am indebted to Craig Graves, who worked very hard on the videos for this project; saving me time and a lot of energy. I am also eternally grateful to The Children's Program for their friendship, kindness, support, and knowledge over the past two years, and for their willingness to participate in this research project. Finally, I would like to thank all of my committee members, Dr. Hyun-Joo Jeon, Dr. Maria Hernandez-Reif, and Dr. James Hall for their input, suggestions, and support. Without all of these people, my Master's degree would not have been possible.

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Chapter 1: Introduction

The preschool years are vital to children's holistic development. An important aspect of preschool children's development is their social-emotional development specifically, social competence. Children's social competence is a reflection of their behavioral (Denham, Blair, DeMulder, Levitas, Sawyer, Auerbach-Major, & Queenan, 2003; Lobo & Winsler, 2006) and social interaction skills (Denham, et al.2003; Rose-Krasnor, 1997). Social competence influences school readiness, academic achievement, social adjustment and behavior, and interpersonal relationships (Denham, et al., 2003; Gouley, Brotman, & Huang, 2008; Ladd, 2005; Lobo & Winsler, 2006; Raver & Zigler, 1997; Rose-Krasnor, 1997; Webster-Stratton & Hammond, 1998). Research shows that social competence is stable over time; thus, the preschool years are crucial for acquiring the skills set that will make them socially competent (Denham, et al., 2003; Gouley, et al., 2008; Lobo & Winsler, 2006; Rimm-Kaufman & Pianta, 2000; Obradović, Van Dulmen, Yates, Carlson, & Egeland, 2006; Youngstrom, et al., 2000). When looking at social competence, it is important to determine how it can be promoted in preschool children.

Research has found that involvement in a creative movement program enhances children's social competence, which helps them facilitate relationships with their peers (Graham, n.d.; Lobo & Winsler, 2006; Von Rossberg-Gempton, Dickinson, & Poole, 1999). Among other

things, it has been suggested that creative movement increases children's problem solving (Bannon, 1994; Kaufmann & Ellis, 2007; Lorenzo-Lasa, et al., 2007; Lukes, 2010; Theodorakou & Zervas, 2003) and cooperation skills (Chueng, 2010; Lukes, 2010; Von Rossberg-Gempton, et al., 1999), their ability to communicate (Chueng, 2010; Von Rossberg-Gempton, 1999) and express their emotions (Bannon, 1994; Gilbert, 1992; Lorenzo-Lasa, 2007), and self-regulation skills (Greer-Paglia, 2006). Despite the praises for the benefits of creative movement (Allen & Coley, 1996; Bannon, 1994; Gilbert, 1992; Lorenzo-Lasa, et al., 2007), there is a deficit in the empirical research. The purpose of the current study was to examine the association between children's creative movement and their social competence.

Importance of Social Competence

Social competence is a broad concept with many dimensions. It precedes general adjustment to societal demands, and is a child's ability to engage in positive relationships with parents, siblings, teachers, and peers (Ladd, 2005; Raver & Zigler, 1997). To be considered socially competent a child has to attain their social goals while respecting the social goals of others (Ladd, 2005; Raver & Zigler, 1997). Social competence also encompasses how children attain peer acceptance (Ladd, 2005; Webster-Stratton & Lindsay, 1999), how they maintain friendships (Webster-Stratton & Lindsay, 1999), their pro-social and communication skills, and their ability to inhibit the use of negative behaviors, such as aggression (Denham, Blair, DeMulder, Levitas, Sawyer, Auerbach-Major, & Queenan, 2003; Lobo & Winsler, 2006), through self-regulation and emotional regulation (Denham, et al., 2003; Gouley, Brotman, & Huang, 2008; Ladd, 2005; Lobo & Winsler, 2006; Raver & Zigler, 1997; Webster-Stratton & Lindsay, 1999). Problem solving skills and conflict management skills also contribute to children's social competence (Webster-Stratton & Lindsay, 1999; Youngstrom, Wolpaw, Kogos, Schoff, Ackerman, & Izard, 2000). Children's school readiness, academic achievement, social adjustment, conduct problems, and interpersonal relationships are all influenced by their levels of social competence (Denham, et al., 2003; Gouley, et al., 2008; Ladd, 2005; Lobo & Winsler, 2006; Raver & Zigler, 1997; Rose-Krasnor, 1997; Webster-Stratton & Hammond, 1998).

Previous research suggests that the level of social competence lies in the effectiveness of the social interaction (Denham, et al.2003; Rose-Krasnor, 1997). Both children's actions (e.g. sharing toys, taking turns, helping others, and verbal interactions) and how they integrate themselves into peer groups, reflect their ability to interact and level of social competence (Bruder & Chen, 2007; Ladd, 2005; Obradović, Van Dulmen, Yates, Carlson, & Egeland, 2006;

Webster-Stratton & Hammond, 1998). Studies have found that children who lack an appropriate level of social competence tend to have conduct problems and are often aggressive and impulsive in social situations (Bruder & Chen, 2007; Ladd, 2005; Webster-Stratton & Hammond, 1998; Webster-Stratton & Lindsay, 1999; Youngstrom, Wolpaw, Kogos, Schoff, Ackerman, & Izard, 2000). They also have fewer pro-social and problem solving skills and more aggressive conflict management skills (Webster-Stratton & Lindsay, 1999). Children's social competence levels have also been negatively associated with internalizing and externalizing problem behaviors (Denham, et al., 2003; Gouley, et al., 2008; Webster-Stratton & Lindsay, 1999). Furthermore, Ladd (2005) suggested that children with lower levels of social competence may be deficient in the skills needed to balance social aims, rather than completely lacking appropriate relational goals. In contrast, children with high levels of social competence have fewer aggressive behaviors and conduct problems, and are more successful at integrating themselves into peer groups (Webster-Stratton & Hammond, 1997; Youngstrom, et al., 2000). Children who have achieved higher levels of social-emotional competence typically exhibit fundamental emotional, cognitive, and behavioral skills that include understanding and managing emotions, problem solving and goal setting skills, and comprehension and implementing socially appropriate behaviors (Elias & Haynes, 2008).

A precursor to social competence is the acquisition of emotional competence, or the ability to express and regulate emotions, as well as the comprehension of others' emotions (Denham, et al., 2003; Gouley et al., 2008). For example, Denham, et al. (2003) found that children who achieved emotional competence at the ages of three and four had higher levels of social competence at those ages, as well as in kindergarten. The same sample of children revealed that their knowledge and accurate interpretation of their peer's emotions predicted their

social competence (Denham, et al., 2003). Children who expressed their emotions without venting were more socially competent and were less likely to show signs of aggression (Denham, et al., 2003). Children who were sensitive to their peers were also able to interpret the non-verbal messages, increasing the quality of their social relationships (Jurcova & Stubnova, 1999).

Research finds that social competence remains stable over time (Denham, et al., 2003; Gouley, et al., 2008; Lobo & Winsler, 2006; Rimm-Kaufman & Pianta, 2000; Obradović, et al., 2006; Youngstrom, et al., 2000). Therefore, the preschool years are vital for social and emotional development because it is the first time that many children are broadening their social horizons and becoming involved in larger and more complex peer groups (Denham, et al., 2003; Gouley, et al., 2008; Lobo & Winsler, 2006; Rimm-Kaufman & Pianta, 2000). Preschool provides children with opportunities to develop the social skills needed for kindergarten and beyond (Carlton & Winsler, 1999). The preschool environment is structured around social development, where children face the task of developing socially acceptable ways of relating to their peers, which can be complex for young children (Howes, Phillips, & Whitebook, 1992; Rimm-Kaufman & Pianta, 2000). Children attending high quality preschools are more likely to make friends and are rated as more socially competent (Burchinal, Vandergrift, Pianta, & Mashburn, 2010; Curby, LoZCasale-Crouch, Konold, Pianta, Howes, Burchinal, Bryant, Clifford, Early, & Barbarin, 2009; Vandell, Henderson, & Wilson, 1998). In high quality preschool programs, child directed peer activities provide the context for children to learn how to share, take turns, co-operate, consider others' perspectives and emotions, and inhibit aggression (Lobo & Winsler, 2006).

Researchers, teachers, and parents are increasingly concerned with children's school readiness and subsequent success; children's social competence plays an important role in this

transition (Kohn & Rosman, 1974; Rimm-Kaufman & Pianta, 2000). The nature of their social relationships change, and they have new demands on their social and emotional competencies (Rimm-Kaufman & Pianta, 2000). As children move into kindergarten and elementary school, it is fundamental that they attain appropriate social skills and reach adequate levels of social competence to be considered prepared for school. Webster-Stratton, Reid, and Stoolmiller (2008) define part of school readiness as possessing emotional self regulatory abilities and social competence, and the absence of behavior problems. Kindergarten teachers consistently report that children's social skills are an important part of their school readiness and that these first years of school are predictive of later school success (Carlton & Winsler, 1999; Rimm-Kaufman & Pianta, 2000). However, children do not simply grow into school readiness; instead they need experiences to develop the necessary skills (Carlton & Winsler, 1999). Research has shown that school readiness and academic achievement are greatly affected by children's ability to socialize, have positive social interactions, and create healthy relationships with their peers (Bierman, Torres, Domitrovich, Welsh, & Gest, 2008; Bruder & Chen, 2007; Carlton & Winsler, 1999; Elias & Haynes, 2008; Ladd, 1990; Ladd & Price, 1987). Preschoolers who are socially and emotionally well adjusted have greater learning achievements in school (Kohn & Rosman, 1974). Socially competent children are better at integrating themselves into play situations with their peers which leads to more positive social experiences, and therefore more positive attitudes about school; children who lack these skills tend to lag behind (Denham, et al., 2003; Ladd, 1990; Ladd & Price, 1987; Uren & Stagnitti, 2009; Webster-Stratton & Lindsay, 1999).

The development of positive peer relations is predictive of school adjustment and the reputation that the child receives (Ladd, 1990; Ladd & Price, 1987). These relationships with peers have shown the greatest influence on children's development when the peer is a friend

rather than another individual, thus further underscoring the importance of friends and peers for the development of social competence (Azmitia & Montgomery, 1993). The relationships and reputation children gain early on at school affects their opportunities for cooperative play, which research has shown to be important for practicing social skills (Ladd, 1990; Ladd & Price, 1987; Webster-Stratton & Lindsay, 1999). Children with higher levels of social competence and positive emotions are often able to develop play themes that are appealing to many children, thus giving them the opportunity to practice their social skills with peers through cooperative play (Uren & Stagnitti, 2009; Sallquist, Eisenberg, Spinrad, Reiser, Hofer, Zhou, Liew, & Eggum, 2009). Children lacking social competence often have more aggressive interactions during dyadic play with their peers (Webster-Stratton & Lindsay, 1999). It is important however, that children are given opportunities to practice appropriate social skills in non threatening environments where there is no right or wrong; practice helps sustain skills that are developed (Hennessey, 2006; Gendron, Martin, Royer, Egide, Bertrand, Richard, & Potvin, 2004). Children who are un-liked by their peers become rejected or neglected (Ladd & Price, 1987; Webster-Stratton & Lindsay, 1999). In contrast, children with constructive patterns of emotional expressiveness establish positive reputations and build better relationships with their peers (Denham, et al., 2003).

Creativity

Creativity is a variable term with no absolute definition (Mindham, 2005). The idea of creativity is valuable in itself (Barron & Harrington, 1981) and relevant in daily life (Sterberg & Lubart, 1996). Some view creativity as the ability to produce work that is novel and appropriate for the context in which it is being generated (Dellas & Gaier, 1970; Lubart, 1990; Sternberg, & Lubart, 1996). Runco (2001) says that “creativity is the universal human capacity

to construct personal interpretations of experience.” Some areas focus on the creative product, while others find the process to the product as the most important aspect of a person’s creativity (Barron & Harrington, 1981; Mindham, 2005). Creativity is an important asset in today’s challenging society where broad and novel solutions are needed and are considered a result of creative thinking and problem solving (James & Asmus, 2001; Moran, Milgram, Sawyers, & Fu, 1983; Saracho, 2002; Sternberg & Lubart, 1996; Youngstrom, et al., 2000). Individuals are coveted in institutions and organizations for their ability to solve problems and function in social situations (Butcher & Niec, 2005; Sternberg & Lubart, 1996). Creativity enables people to excel in the work place because they generate new ideas (Kemple, et al., 1996). Today’s society simply demands the creative individual and their divergent thinking skills and novel resolutions (Saracho, 2002).

An individual with a high level of creativity not only has the ability to see things from multiple perspectives, and use it for their creative means, but they like to do so (Sternberg & Lubart, 1996). Creative individuals are considered more willing to overcome obstacles and adversity (Sternberg & Lubart, 1996) and take sensible risks (Barron & Harrington, 1981; Lubart, 1990; Sternberg & Lubart, 1996; Sternberg & Lubart, 1996). They are open to new experience (Saracho, 2002) and tolerate ambiguity (Barron & Harrington, 1981; Sternberg & Lubart, 1996; Sternberg & Lubart, 1996). These individuals are often self-efficient (Barron & Harrington, 1981; Jurcova & Stubnova, 1999; Lubart, 1990; Sternberg & Lubart, 1996), self-accepting (Dellas & Gaier, 1970; Jurcova & Stubnova, 1999), and have high self-esteem (Barron & Harrington, 1981; Jurcova & Stubnova, 1999). Many possess a high level of divergent thinking (Barron & Harrington, 1981; Butcher & Niec, 1996; Dellas & Gaier, 1970; James &

Asmus, 2001; Runco, 2001; Saracho, 2002; Shure & Spivack, 1980), and a strong sense of curiosity (Barron & Harrington, 1981).

Fostering creativity at a young age occurs when teachers or parents provide an environment that is conducive to innovative thinking and this type of thinking and performance is supported and rewarded (Lubart, 1990; Runco, 2001; Saracho, 2002; Sternberg & Lubart, 1996; Sternberg & Lubart, 1996; Sternberg & Lubart, 1991). Beginning in childhood, people encounter problems, whether they are socially related or not, that compel them to generate novel solutions (Saracho, 2002). Acceptance of children's ideas motivates them to engage in creative thinking and generate novel ideas and solutions (Saracho, 2002). Adults should encourage children's follow-up creative thinking processes and reward the creative outcomes (Sternberg & Lubart, 1991). Unfortunately, creativity is often discouraged in the interest of children achieving conformity (Sternberg & Lubart, 1996). Parents and teachers need to be made aware of the importance of creative and divergent thinking (Barron & Harrington, 1981; Butcher & Niec, 1996; Dellas & Gaier, 1970; James & Asmus, 2001; Runco, 2001; Saracho, 2002; Shure & Spivack, 1980), and a strong sense of curiosity (Barron & Harrington, 1981) and problem solving (Butcher & Niec, 1996; James & Asmus, 2001; Runco, 2001; Saracho, 2002; Shure & Spivack, 1980; Sternberg & Lubart, 1996; Youngstrom, et al., 2000).

Research has found that perhaps one of the most important contributions to a person's creativity is their ability to generate multiple ideas or ways to solve problems; or they possess a high level of divergent thinking (Barron & Harrington, 1981; James & Asmus, 2001; Saracho, 2002). Divergent thinking and creativity are positively correlated (Barron & Harrington, 1981). Even as children, the ability to generate novel solutions is important (Saracho, 2002). Divergent thinking skills include: fluency of thought, flexibility, originality or uniqueness, and elaboration,

or the ability to expand on an idea or connect it with other thoughts (Dellas & Gaier, 1970; James & Asmus, 2001). The flexibility of the creative individual's thinking allows for spontaneous and adaptive thinking (Dellas & Gaier, 1970). Research has found that teens with higher divergent skills also have high emotional sensitivity, which is important for their social competence (Denham, et al., 2003; Jurcova & Stubnova, 1999). Divergent thinking is linked to creative problem solving, and individuals with poor divergent thinking skills often have fewer solutions to problems (Butcher & Niec, 1996; Runco, 2001).

Creativity is relevant when solving problems in daily life situations (Sternberg & Lubart, 1996). Creativity fosters unorthodox thinking and often breaking barriers and allowing one to use non-traditional approaches to solving problems (Mindham, 2005). Creative abilities facilitate better adjustment to new situations (Butcher & Niec, 1996; Runco, 2001) and the discovery of novel ways to solve problems (Runco, 2001). Research has found that a creative personality is positively correlated with better problem solving skills (James & Asmus, 2001), and these individuals are sensitive to problem redefinition (Dellas & Gaier, 1970). The ability to conceptualize multiple solutions to a problem, think of potential consequences, and engage in higher levels of pro-social problem solving skills, contributes to higher creativity and fewer behavioral problems (Shure & Spivack, 1980; Youngstrom, et al., 2000).

Children with aggressive problem solving solutions (e.g. hitting, shouting, snatching, etc.) often have lower social competence (Youngstrom, al., 2000) and lower levels of emotional understanding (Runco, 2001; Youngstrom, et al., 2000). Their disruptive behavior is negatively correlated with creativity and divergent thinking (Butcher & Niec, 1996), and these children show significant differences from their peers in problem solving abilities (Butcher & Niec, 1996; Shure & Spivack, 1980). They often think of only a few solutions to a problem and are typically

unaware or unconcerned about the effects of their actions on their peers (Shure & Spivack , 1980). One of the best mediators for preschool children's disruptive behavior is the ability to conceptualize alternative solutions to peer problems and potential consequences of their actions (Shure & Spivack, 1980). Children who are more aware of their social impact and how to problem solve with peers, are found to be more creative individuals (Kusá, 2000).

Creative Movement

In the literature, dance, creative dance, and creative movement are often used interchangeably (Dow, 2010; Lobo & Winsler, 2006; Oshuns, 1977; Von Rossberg-Gempton, Dickinson, & Poole, 1999). However, for the purposes of this study, dance and creative dance are defined as the art of formalized, instructional, and structured forms of movement (Oshuns, 1997). Dance deals with emotions, attitudes, and ideas that become internalized through the experience of movement, and is the interpretation of these ideas and feelings expressed symbolically through the body (Dimondstein, 1985). However, dance is often considered a process to acquire a set of skills; skills that are a sequence and one must be mastered before another can be learned (Dimondstein, 1985; Kaufmann & Ellis, 2007). Formalized dance styles, such as ballet, commonly require pre-learned skills before a child can pursue the art-form (Dimondstein, 1985).

In contrast, creative movement is defined as non-competitive, spontaneous yet guided, movements of the body that enable children to express emotions, tell stories, and build relationships (Greer-Paglia, 2006). Creative movement is an art-form whose medium is the body used for natural movement (Kaufmann & Ellis, 2007) and creative expression (Bannon, 1994; Cheung, 2010; Dow, 2010; Oshuns, 1977). Creative movement can be children's interpretation of their ideas and feelings about any situation in their lives (Chueng, 2010), or a response to a

story, song, or poem (Dow, 2010; Lobo & Winsler, 2006). Elements of imitation (Greer-Paglia, 2006) and improvisation (Theodorakou & Zervas, 2003) combine to create a unique movement experience (Allen & Coley, 1996; Gilbert, 1992; Greer-Paglia, 2006). Creative movement is an individualistic activity (Oshuns, 1977) that can be performed alone or in a group (Dow, 2010; Graham, n.d.; Lorenzo-Lasa, Ideishi, & Ideishi, 2007; Von Rossberg-Gempton, et al., 1999), and can have positive effects on children at any age and any skill level (Gilbert, 1992; Lorenzo-Lasa, et al., 2007; Lukes, 2010).

For years, dance educators and dance movement therapists have been praising creative movement and dance for the benefits it offers children of all ages (Allen & Coley, 1996; Bannon, 1994; Gilbert, 1992; Lorenzo-Lasa, et al., 2007). Creative movement stimulates the development of social-emotional skills that enable children to facilitate relationships with their peers (Graham, n.d.; Gottlob & Oka, 2007; Lorenzo-Lasa, et al., 2007). Creative movement provides an opportunity to learn problem solving skills (Bannon, 1994; Kaufmann & Ellis, 2007; Lorenzo-Lasa, et al., 2007; Lukes, 2010; Theodorakou & Zervas, 2003), cooperation (Chuang, 2010; Lukes, 2010; Von Rossberg-Gempton, et al., 1999), and socially acceptable ways to express emotions (Bannon, 1994; Gilbert, 1992; Lorenzo-Lasa, et al., 2007). It promotes increased self-regulation skills (Greer-Paglia, 2006), self-control (Bannon, 1994; Dow, 2010; Gilbert, 1992; Greer-Paglia, 2006; Lukes, 2010), and self-awareness (Bannon, 1994; Dimondstein, 1985; Gottlob & Oka, 2007; Lorenzo-Lasa, 2007). Creative movement allows children to take risks and become aware of their body (Lukes, 2010; Oshuns, 1977) and inner-self (Dimondstein, 1985; Lukes, 2010; Oshuns, 1977), which fosters self-esteem (Bannon, 1994; Gilbert, 1992; Lukes, 2010). Positive feedback, encouragement, and a non-threatening environment (Bannon, 1994; Lorenzo-Lasa, et al., 2007), where there is no right or wrong

(Bannon, 1994; Lobo & Winsler, 2006; Lukes, 2010), also assist in fostering positive self-esteem in young children (Bannon, 1994; Lukes, 2010).

Creative movement enhances children's communications skills (Chueng, 2010; Von Rossberg-Gempton, 1999). Participation in creative dance and movement increases children's verbal skills (Graham, n.d.; Von Rossberg-Gempton, et al., 1999), which contribute to their intra/inter personal skills (Bannon, 1994; Graham, n.d.). Research that implemented a creative movement program with children with autism, found that these children showed an increase in social competence over the course of the program (Greer-Paglia, 2006). Children with a diminished verbal capacity initially scored the lowest on social competence measures, yet were found to have the greatest gains in social competence when compared with children who had typical verbal capabilities (Greer-Paglia, 2006). Greer-Paglia (2006) suggested that the creative movement program provided children with alternate means of expressing themselves, and teachers reported that it encouraged socialization, imitation, and relaxation in their students. This suggests that the benefits of creative movement reach beyond typically developing children (Greer-Paglia, 2006). Creative movement can have positive effects for children who have difficulty in communicating (Dow, 2010; Greer-Paglia, 2006), an important skill in developing social competence, by providing them with an alternative outlet, creative movement (Dow, 2010; Greer-Paglia, 2006). Thus, creative movement can both increase children's verbal skills and provide an alternate means of expression.

Creative movement offers children the opportunity to gain self (Bannon, 1994; Dimondstein, 1985; Gottlob & Oka, 2007; Lorenzo-Lasa, et al., 2007) and social awareness (Bannon, 1994; Dimondstein, 2010; Lukes, 2010; Von Rossberg-Gempton, et al., 1999) in many areas of behavior (Dimondstein, 1985). Children are able to develop an increased awareness of

their bodies (Lukes, 2010), and others, as they move through a space within a group of children (Bannon, 1994; Dimondstein, 1985; Dow, 2010; Lorenzo-Lasa, et al., 2007; Von Rossberg-Gempton, et al., 1999). The research refers to this as children's spatial awareness (Dow, 2010; Lukes, 2010). Children begin to recognize how fast they are moving and how to slow down or speed up, or how to control their bodies when they change direction in group situations (Dow, 2010). They learn to respect their peer's space, ideas, needs, etc. (Cheung, 2010; Dow, 2010; Lukes, 2010); according to Stinson, children carry this over to their other daily activities (as cited in Dow, 2010, p.32). Creative movement affords children opportunities to learn acceptance and to value differences among peers as they learn to relate to each other (Chueng, 2010; Gilbert, 1992; Lukes, 2010; Von Rossberg-Gempton, et al., 1999; Ylönen & Cantel, 2009). When children listen and respond to directions, explore others' ideas, and share space, they are being given the opportunity to learn and practice the social skills needed for working as a group (Chueng, 2010; Dow, 2010; Von Rossberg-Gempton, et al., 1999; Ylönen & Cantel, 2009).

When children participate in creative movement, they are offered the opportunity to take risk and make decisions for themselves (Dow, 2010). This increases children's ability to find more than one solution to a problem, question, or task (Dow, 2010; Ylönen & Cantel, 2009), and to do so as a group (Dow, 2010). Creative movement encourages children's critical thinking skills (Chueng, 2010; Lukes, 2010) and divergent thinking (Theodorakou & Zervas, 2003); skills that are important for problem solving among peers and finding new ways to express themselves (Bannon, 1994; Oshuns, 1977). Creative movement provides the opportunity to think and create (Chueng, 2010) while experimenting with social-emotional interactions (Lorenzo-Lasa, et al., 2007).

While the field of research on creative movement is growing, there is still a significant shortage of empirical research to support the claimed benefits (Bannon, 1994; Gottlob & Oka, 2007; Graham, n.d.; Lobo & Winsler, 2006; Oshuns, 1977; Von Rossberg-Gempton, et al., 1999; Ylönen & Cantel, 2009). Much of the current body of research lacks components that make it scientifically rigorous. In addition, many studies look at children beyond the preschool years, to elementary school and adolescence (Bannon, 1994; Oshuns, 1977; Theodorakou & Zervas, 2003; Von Rosseberg-Gempton, et al., 1999). Research does address issues of social development in relation to creative movement (Bannon, 1994; Chueng, 2010; Graham, n.d.; Lobo & Winsler, 2006; Oshuns, 1977; Theodorakou & Zervas, 2003; Von Rosseberg-Gempton, et al., 1999; Ylönen & Cantel, 2009), though Lobo and Winsler (2006) assess social competence specifically.

Lobo and Winsler (2006) looked at whether involvement in a creative movement/dance program would increase the social competence of preschoolers. The results of their study showed that “children who participated in the dance program [...] made significantly greater gains” in social competence and self-confidence, while decreasing internalizing and externalizing behavior problems (Lobo & Winsler, 2006, p. 510). Within the program, children’s ideas and movements were always praised; there was no such thing as failure. The children were introduced to a new way of expressing themselves socially and emotionally, they created bonds with each other, and were allowed to take social risks that they might not have otherwise.

Children with high levels of social competence show signs of greater pro-social problem solving skills, while children with lower levels of social competence have aggressive problem solving skills (Webster-Stratton & Hammond, 1998; Youngstrom, et al., 2000). Children who are less aggressive often consider more solutions to problems and contemplate consequences to

their actions (Shure & Spivack, 1980). Creative individuals, with creative problem solving skills, possess higher emotional understanding and sensitivity (Jurcova & Stubnova, 1999; Runco, 2001) as well as, the ability to interpret interpersonal cues (Kusá, 2000). Thus, they have more interpersonal problem solving skills and divergent thinking abilities (Jurcova & Stubnova, 1999; Kusá, 2000; Runco, 2001).

When creativity is promoted, positive effects on social development have been found (Theodorakou & Zervas, 2003). Creative movement stimulates creativity (Von Rosseberg-Gempton, et al., 1999) and social participation is a core element of creative movement (Lorenzo-Lasa, et al., 2007). Individuals that were classified as being highly creative were better adjusted socially and emotionally than their peers (Smith & Moran, 1900). Poole (1979), stated that it is “important to stress that creativity can occur in any curriculum area and in any product type for example, a new movement in a dance [... or to solve a conflict]” (Poole, 1979, p.10 as cited in Mindham, 2005).

Much of the research in the area of creativity (Jurcova & Stubnova, 1999; Moran, et al., 1983; Smith & Moran, 1990) and creative movement (Bannon, 1994; Oshuns, 1977; Theodorakou & Zervas, 2003; Von Rosseberg-Gempton, et al., 1999) has been conducted with school age children and adolescents. Research on preschool children’s creativity is lacking. It is important to conduct research with a preschool population because their creative abilities may differ from older children (Moran, et al., 1983). The preschool years are in fact, a crucial time for the development of social competence (Denham, et al., 2003; Gouley, et al., 2008; Lobo & Winsler, 2006; Obradović, et al., 2006; Rimm-Kaufman & Pianta, 2000) and creativity (Kemple, et al., 1996). It is possible that connections exist between social competence, creativity, and creative movement.

The current study examined whether children who currently participate in creative movement activities in their preschool classroom possess high levels of social competence, and whether there was a relationship between children's creative movement and their social competence. This study used a larger sample of typically developing children than previous studies. Children's engagement and creativity were assessed as they participated in creative movement activities with their classroom teacher, which strays from previous study methods of using outside dance instructors or dance therapy instructors (Bannon, 1994; Gottlob & Oka, 2007; Greer-Paglia, 2006; Lobo & Winsler, 2006; Oshuns, 1977; Von Rosseberg-Gempton, et al., 1999; Ylönen & Cantel, 2009).

The aim of this study was to determine whether participation in movement activities and creative movement activities is related to children's social competence. The null hypotheses of the current study are:

1. There is no relationship between teachers' behaviors (teachers' use of instructional media, encouragement of creativity, use of verbal instruction, and use of physical cues) and children's movement and creative movement participation.
2. There is no relationship among children's observed behaviors (positive affect, movement participation, creative movement participation, child encourage children, child engage teacher, and creative movement composite), teacher-reported children's ability to move, and parent and teacher-reported social competence.
3. There are no differences in children's observed behaviors, teacher's observed behaviors, and teacher-reported children's ability to move among the four classrooms.

4. Children's creative movement and teacher-reported children's ability to move do not predict children's social competence after controlling for child age and gender, family income, and parent education.

Chapter 2: Methods

Participants

This study recruited 61 children between the ages of 36 to 67 months ($M = 53.32$, $SD = 7.19$), their parents, and four teachers from three preschools in a southeastern, medium-sized, university town. Parents and teachers were recruited through visitation and discussion of research goals and procedures. Of these 61 participants, only 51 children (54% male) from the university's laboratory school, which is accredited by The National Association for the Education of Young Children (NAEYC), completed the study. Approximately 73% of the children were European-American, 16% were African-American, 3% were Asian-American, and 6% were of other ethnicities. When asked to complete the questionnaires, 87% of the parent questionnaires were completed by mothers. In regards to parental education, 23% of parents have received a doctoral or professional degree, 30% have completed their master's, 38% have received a bachelor's degree, and 8% have completed some college courses. Approximately 50% of the participating families had an annual income of over \$80,000. The characteristics of the children and families are presented in Table 1.

Table 1

Descriptive Statistics for Demographic Characteristics of Participants

Variable	<i>N</i>	<i>%</i>	<i>M</i>	<i>SD</i>	<i>Range</i>
Child	61				
Gender					
Male	33	54.1			
Female	27	44.3			
Age (months)	59		53.32	7.19	36-67
Ethnicity					
European American	40	65.6			
African American	10	16.4			
Asian/Asian American	2	3.3			
Caucasian	4	6.6			
White/American	1	1.6			
Indian	1	1.6			
German	1	1.6			
Family					
Relationship to child					
Mother	53	86.9			
Father	7	11.5			
Parent age	58		33.03	7.74	23-45
Parent education level					
High school graduate or GED	0	0			
Some college courses	5	8.2			
2-Year college degree	0	0			
4-Year college degree	23	37.7			
Master's degree (M.A., M.S., M.E.)	18	29.5			
Doctorate/Professional degree (M.D., Ph.D.)	14	23.0			
Income (household before taxes)					
Under \$20,000	6	9.8			
\$20,001-\$40,000	6	9.8			
\$40,001-\$60,000	10	16.4			
\$60,001-\$80,000	5	8.2			
\$80,001-\$100,000	13	21.3			
Over \$100,000	19	31.1			

Note: Total *Ns* of variables differ from *N*=61 due to missing data.

Procedures

Recruitment

Participants were recruited from three preschools, each with approximately 60 three- to five-year-old children, beginning in January 2011. Parents were provided a brief explanation of the study and a description of their role in data collection. If they were interested in their child participating, they received a packet of information containing two consent forms, a brief demographic questionnaire, and two questionnaires regarding their child's social competence. Parents were asked to return the consent forms and questionnaires within two weeks of the day they were recruited; after two weeks parents received reminder letters if the packet of information had not been returned to either the child's teacher or the researcher. At the time of recruitment, each study child received an identification number that was to be placed on their backs in the form of a small sign so that they could be identified during video coding. Parents and teachers were recruited simultaneously; teachers were given a brief explanation of their role in the study and asked to sign a consent form stating that they would complete two social competence questionnaires and a questionnaire regarding children's ability to move, for each child from their classroom participating in the study.

Subsequent to obtaining informed consents for a minimum of 10 children per classroom, discussions with teachers and program directors were held to schedule dates and times for videotaping the teacher and children during planned movement activities. Prior to videotaping, two programs were dropped from the study due to unforeseen complications. In March 2011, participating classrooms were scheduled for two 30-minute video observations on non-consecutive days. There was at least two weeks time between each classroom's video sessions.

Measures

Children's Social Competence

The Social Competence and Behavioral Evaluation-Preschool Edition, Short Form (SCBE) (LaFreniere & Dumas, 1996), examines patterns of social competence, emotion regulation and expression, and adjustment difficulties in children ages 30 to 78 months (LaFreniere & Dumas, 1996). It is typically used in research studying social and emotional development, in particular social competence (LaFreniere & Dumas, 1996). The measurement consists of 30 items broken into three factor scales: Anger-Aggression, Social Competence, and Anxiety-Withdrawal; each factor scale consists of 10 items. Items include positive and negative statements about children's behaviors in relation to peers and adults (Kotler & McMahon, 2002). It uses a six-point likert scale, ranging from one (never), two/three (sometimes), four/five (often), to six (always). Research has found the shortened 30 item version to be as efficient as the 80 item edition (LaFreniere & Dumas, 1996).

This measurement has shown high inter-rater and test-retest reliability, internal consistency, and stability over a six month period (LaFreniere & Dumas, 1996). Inter-rater reliability correlations on the three factor scales ranged from .78 to .91 (LaFreniere & Dumas, 1996). Test-retest reliability, over a two week period, had correlations that range from .78 to .86 (LaFreniere & Dumas, 1996). Internal consistencies of factor scales ranged from $\alpha = .80$ to $\alpha = .92$ (LaFreniere & Dumas, 1996). Three factors accounted for 44% of variance: compliance, noncompliance, and aversive behavior (Kotler & McMahon, 2002). The current study found that the SCBE-30 had internal consistency of $\alpha = .92$ for teachers and $\alpha = .87$ for parents. For the current study's data analysis, mean scores were calculated for all 30 items; a mean score closer to six indicated a higher level of social competence.

The Devereux Early Childhood Assessment (DECA) is a measurement tool that is used to evaluate protective and risk factors (i.e. behavioral concerns) in young children age 2 to 5 years and is linked to both classroom and home-based factors (LeBuffe & Naglierei, 1999; Reddy, 2007; Ogg, Brinkman, Dedrick, & Carlson, 2010). It evaluates children's independence, active learning, optimism, problem solving, their ability to manage frustration, cooperation, respect of others, and ability to self-soothe (Reddy, 2007; Ogg, Brinkman, Dedrick, & Carlson, 2010). It is composed of 37 items within two composite scales: total protective factors and behavioral concerns. The DECA uses a five-point likert scale ranging from 0 (never), 1 (rarely), 2 (occasionally), 3 (frequently), to 4 (frequently).

This measurement has shown internal, test-retest, and inter-rater reliability (Reddy, 2007). The internal consistency for parents is $\alpha = .91$ for the protective factors scale and $\alpha = .71$ for behavioral concerns (LeBuffe & Naglieri, 2007). For teachers, internal consistency is $\alpha = .94$ for the protective factors scale and $\alpha = .80$ for behavioral concerns; all of these, except parent's behavioral concerns, falls above the desired .80 (Reddy, 2007). Test retest reliability correlations ranged from .55 to .80 for parents, and teacher's correlation coefficients ranged from .68 to .91 (Reddy, 2007). Inter-rater reliability was assessed between two parents, parents and teachers, and teachers. Parent-to-parent reliability correlations ranged from .21 to .44; parent-to-teacher reliability correlations ranged from .19 to .34; teacher-to-teacher reliability correlations ranged from .57 to .77. Construct validity was determined by correlating the scores of the protective factor scales and Behavioral Concerns scale, and an overall correlation of -.65 was found (LeBuffe & Naglieri, 1999). The current study found the internal consistency for teachers is $\alpha = .96$ and for parents $\alpha = .90$. For the purposes of the current study's data analysis, mean

scores of all 37 items were calculated; a mean score of four would indicate the highest level of social competence according to the DECA.

Teacher Assessment: Music and Movement; Children's Ability to Move

The modified *Music and Movement Scale from High/Scope's Child Observation Record* (COR) (High/Scope Educational Research Foundation, 2011), assesses children's physical abilities and movements, and is typically used by teachers (High/Scope Educational Research Foundation, 2011). There are four items answered on a five-point scale, with each having its own description regarding the meaning of the number. The items cover children's coordination, motor skills, response to music, and ability to move in sequences. A child with advanced physical abilities would have a mean score close to five. The original High/Scope's COR has internal consistency for each construct level that ranges from $\alpha = .80$ to $\alpha = .93$ for teachers (Schweinhart, McNair, Barnes, & Larner, 1993). Inter-rater reliability correlations between teachers and assistant teachers range from .62 to .72. The COR Music and Movement Scales had correlations ranging from .27 to .46 (Schweinhart, McNair, Barnes, & Larner, 1993). The current study found the internal consistency when used by teachers is $\alpha = .94$. For the purposes of the current study's data analysis, a total composite score was used to capture teacher-reported children's ability to move (TMM).

Creative Movement Activity/Participation Scale

The *Creative Movement Activity/Participation Scale* was designed by the researcher for the purpose of this study. Children and teachers were informally observed for common behaviors during music and movement time in their classrooms. The most common behaviors were then transformed into yes/no observation questions and divided into two sections, child activity and teacher activity (Appendix A). The primary goal of the scale was to observe

whether children were engaged in the movement activity, whether they were creative in their movements or not, and to observe behaviors the children displayed while participating. Teachers were coded on behaviors such as their use of songs with instruction, their use of verbal instruction or physical cues, and whether or not they encouraged the children to engage in creative movement. In order for the child to be considered creative in their movements, they were not to be imitating a teacher's movements, another child's movements, or following the instructions of the music; their movements had to appear unique. Similarly, to consider the teacher to be encouraging creativity, they had to be observed giving verbal encouragement such as, "how can you move to this beat" or simply stating, "you can move however you would like" (see Appendix A). The researcher used a randomly selected set of data videos to train the research assistant to use the scale, prior to establishing inter-rater reliability. In order to establish inter-rater reliability, 25% of the research data were coded by both the researcher and research assistant, and the scale was found to have 92% inter-rater reliability between the two coders.

Each of the four classrooms was videotaped twice; 30 minutes per session. Thus, each child was videotaped for a total of 60 minutes. The researcher observed and coded six children at a time using 30 second intervals; at the end of each 30 seconds, the researcher would stop the video and code the child's and teacher's behaviors using the scale. When coding each video the second time through, the researcher used a staggered interval of one minute so that the child was not coded during the same 30 second intervals as before. Each video was coded twice per child so that each child was observed and coded for a total of 20 minutes out of a possible 60 minutes. When coding less than six children, the same time frame and time intervals were used (see Appendix B).

For the purposes of the current data analysis, composite variables were created using related variables from the scale. The creative movement composite variable is comprised of three variables: the child's engagement in creative movement, whether the child encouraged other children to imitate their creative movement or not, and whether the child tried to engage the teacher in the activity or not. A second composite variable, referred to as positive affect includes whether the child displayed positive emotions while engaging in the activity and whether or not the child showed interest in what other children were doing during the activity. A third composite variable for the participation scale is referred to as negative affect and includes whether the child displayed negative emotions while engaged in the movement activity and whether or not the child appeared to be frustrated with others being in their space. The final composite variable was comprised of the variables coded when the child was not engaged in creative movement: whether or not the child imitated the teacher, whether or not the child imitated other children, and whether or not the child followed instructions given by the music/media.

Chapter 3: Results

Descriptive Statistics for the Study Variables

Descriptive statistics for the study variables are found in Table 2. Parent-reported social competence scores differed from teacher-reported social competence scores. Parents rated their children significantly higher on the SCBE than the teachers did on the same scale; $t(50) = 3.507$, $p = .001$. The parents also rated their children significantly higher than the teachers did on the DECA; $t(46) = 5.040$, $p < .001$. The children participated in the movement activities 73% of the time; however, only 21% of their time was spent engaging in creative movement. The children spent 44% of the time that they were not creative, imitating the teacher's physical cues. Media, or music, was used 90% of the time by teachers, and 30% of the music was considered instructional. During the observed movement activity time, teachers spent only 2% of their time encouraging the children to engage in creative movement. They did, however, spend 22% of their time giving verbal instruction and 82% of their time providing physical cues for the children.

Table 2
Descriptive Statistics for the Study Variables

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	Min-Max
Social competence				
Parent-reported SCBE	59	4.77	0.40	3.90- 5.53
Parent-reported DECA	54	3.22	0.30	2.43- 3.70
Teacher-reported SCBE	51	4.47	0.60	2.97- 5.53
Teacher-reported DECA	51	2.87	0.50	1.65- 3.89
Teacher reported child movement ability				
TMM	51	4.25	0.94	1.50- 5.00
Observed movement participation^a				
Child behaviors				
Movement participation	51	.73	0.14	.43- .98
Creative movement participation	51	.21	0.12	.05- .53
Imitate teacher	51	.44	0.14	.15- .75
Imitate children	51	.24	0.09	.05- .50
Follow media instructions	51	.18	0.09	.00- .45
Child encourage children	51	.01	0.02	.00- .08
Child engage teacher	51	.00	0.01	.00- .05
Positive affect	51	.74	0.28	.20- 1.25
Negative affect	51	.01	0.03	.00- .20
Creative movement composite	51	.23	0.13	.05- .53
Teacher behaviors				
Use of media	51	.90	0.08	.75-1.00
Use of instructional media	51	.30	0.11	.10- .45
Encourage creativity	51	.02	0.03	.00- .10
Verbal instruction	51	.22	0.13	.00- .43
Physical cues	51	.82	0.10	.62- .98

Note. Teacher-reported child movement ability = TMM; Social Competence Behavior Evaluation = SCBE; Devereux Early Childhood Assessment for Children Ages 2 through 5 years = DECA; Creative movement composite = Creative movement participation, Child encourage children, and Child engage teacher; ^a = means of ratios of observed behaviors.

Relationships among Child and Teacher Behaviors Related to Movement and Creative Movement

Chi-square tests were run using four observed teacher behaviors (Use of Instructional Media, Encourage Creativity, Verbal Instruction, and Physical Cues) and three children's observed behaviors (Movement Participation, Creative Movement Participation, and Imitate Teacher). When teachers used instructional media, children were more likely to participate in the movement activity (86.9% vs. 13.1%), but less likely to engage in creative movement (21.3 % vs. 78.7%). In addition, when instructional media was used children were more likely to imitate the teacher (88.3% vs. 11.7%). Teachers' encouragement of creative movement was not related to children's movement participation or creative movement participation; however, children were more likely to imitate the teacher when given encouragement to move creatively (66.7% vs. 33.3%). Children were more likely to participate in the movement activity when teachers gave verbal instruction (84.5% vs. 15.5%), but were less likely to engage in creative movement (23.1% vs. 76.9%). When teachers gave physical cues during the activity, children were more likely to participate in the movement activity (80.1% vs. 19.9%), but again less likely to engage in creative movement (26.9% vs. 73.1%). When teachers gave physical cues during the movement activity, children were more likely to imitate the teachers' moves (88.1% vs. 11.9%).

Table 3

Relationships among Child and Teacher Behaviors Related to Movement and Creative Movement

Teacher behavior	Child movement participation			Child creative movement participation		
	No n (%)	Yes n (%)	χ^2	No n (%)	Yes n(%)	χ^2
Use of Instructional Media	75 (13.1)	497 (86.9)	73.72***	392 (78.7)	106 (21.3)	24.43***
Encourage Creativity	4 (13.8)	25 (86.2)	2.42	14 (53.8)	12 (46.2)	3.55
Verbal Instruction	64 (15.5)	350 (84.5)	32.52***	269 (76.9)	81 (23.1)	8.87**
Physical Cues	321 (19.9)	1295 (80.1)	203.22***	947 (73.1)	349 (26.9)	38.53***
	Child imitate teacher					
	No n (%)	Yes n(%)	χ^2			
Use of Instructional Media	46 (11.7)	347 (88.3)	772.75***			
Encourage Creativity	5 (33.3)	10 (66.7)	6.40*			
Verbal Instruction	168 (62.7)	100 (37.3)	0.46			
Physical Cues	113 (11.9)	836 (88.1)	79.61***			

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Correlations among Child Movement and Social Competence

Bivariate correlations were used to determine relationships between children's observed behaviors, teacher-reported children's ability to move scores, and parent- and teacher-reported children's social competence scores. Children's positive affect was moderately correlated with teacher-reported social competence scores. Positive affect was also moderately correlated with children's movement participation, but only minimally correlated with creative movement participation. The creative movement composite was also minimally related to children's positive affect. There was also a minimal correlation between children's movement participation and their creative movement participation. Teacher-reported child movement ability was moderately correlated with parent-reported and teacher-reported social competence scores. Parent-reported SCBE scores and parent-reported DECA scores were correlated, as were teacher-reported SCBE scores and teacher-reported DECA scores (see Table 4). Parent-reported SCBE and teacher-reported SCBE scores were not correlated at all. Parent-reported SCBE scores and teacher-reported DECA scores are minimally correlated. Parent-reported DECA scores and teacher-reported DECA scores were also minimally related.

Table 4
Correlations among Child Movement and Social Competence

	2	3	4	5	6	7	8	9	10	11
1. Positive affect	.54***	.34*	-.08	.24	.33*	.19	.10	.00	.49***	.44***
2. Movement participation		.39**	.03	.06	.38**	.05	.04	-.24	.30*	.30*
3. Creative movement participation			.11	.23	.98***	.03	.09	.07	.20	.22
4. Child encourage children				.09	.28*	.08	-.03	-.04	.08	.07
5. Child engage teacher					.34*	-.16	-.13	.07	.07	-.13
6. Creative movement composite						.02	.06	.07	.19	.20
7. TMM							.40**	.44**	.55***	.62***
8. Parent-reported SCBE								.63***	.24	.30*
9. Parent-reported DECA									.18	.29*
10. Teacher-reported SCBE										.88***
11. Teacher-reported DECA										

Note. Teacher-reported child movement ability = TMM; Social Competence Behavior Evaluation = SCBE; Devereux Early Childhood Assessment for Children Ages 2 through 5 years = DECA; Creative movement composite = Creative movement participation, Child encourage children, and Child engage teacher.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Mean Differences in Children's Movement Ability and Observed Behaviors by Classroom

Analyses of variance (ANOVA) were used to determine whether there were differences among the four classrooms regarding children and teachers' observed behaviors. Tukey Post Hoc tests revealed significant differences between classrooms when looking at children's ability to move (TMM), children's observed positive affect and movement participation, as well as all teachers' observed behaviors. Teachers from classrooms one and two rated their children significantly higher on their ability to move (TMM) than teachers from classrooms three and four. The children from classroom four showed significantly less positive affect than children in classrooms two and three. The children from classrooms three and four had significantly different participation rates, with the children in classroom three having the highest and the children from classroom four having the lowest.

There were significant differences between classrooms for each of the five observed teacher behaviors. The teacher from classroom three used significantly more media than the other three teachers, with the teacher from classroom four using the least amount of media. However, all teachers showed a significant difference in their use of instructional media, with classroom three having the highest amount of instructional media and classroom one having the lowest. With regards to the encouragement of creative movement, the teacher in classroom three gave significantly more encouragement to the children during the activities than the teachers from one, two, and four. All four teachers varied significantly in their use of verbal instruction, though the teacher from classroom two used significantly less verbal instruction than the other three teachers, and the teacher from classroom four used the most. Teachers from classrooms two and four were significantly different in their use of physical cues than the teachers from classrooms one and three who had the highest use of physical cues.

Table 5
Mean Differences in Children's Movement Ability and Observed Behaviors by Classroom

Variable	Classroom				F
	1 M(SD)	2 M(SD)	3 M(SD)	4 M(SD)	
Child					
TMM	4.77(0.31) ^b	4.94(0.15) ^b	3.87(1.11) ^a	3.39(0.83) ^a	13.48 ^{***}
Observed Behavior					
Creative movement composite	0.23(0.12)	0.20(0.13)	0.25(0.14)	0.23(0.13)	0.29
Positive affect	0.68(0.25) ^{ab}	0.88(0.27) ^b	0.83(0.23) ^b	0.55(0.27) ^a	4.29 ^{**}
Movement participation	0.70(0.11) ^{ab}	0.71(0.12) ^{ab}	0.83(0.13) ^{bc}	0.69(0.15) ^a	3.52 [*]
Creative movement participation	0.21(0.12)	0.18(0.11)	0.25(0.14)	0.19(0.09)	0.66
Child encourage children	0.02(0.03)	0.01(0.02)	<.01(0.01)	0.02(0.03)	1.37
Child engage teacher	<.01(0.01)	0.01(0.02)	<.01(<.01)	0.01(0.02)	2.62
Teacher					
Use of media	0.92(0.03) ^b	0.93(0.04) ^b	0.98(0.02) ^c	0.77(0.01) ^a	139.92 ^{***}
Use of instructional media	0.13(0.02) ^a	0.30(0.03) ^b	0.40(0.04) ^d	0.34(0.03) ^c	176.04 ^{***}
Encourage creativity	<.01(<.01) ^a	<.01(<.01) ^b	0.05(0.02) ^c	0.01(0.01) ^a	44.05 ^{***}
Verbal instruction	0.27(0.02) ^c	0.03(0.03) ^a	0.21(0.06) ^b	0.37(0.05) ^d	149.88 ^{***}
Physical cues	0.88(0.05) ^c	0.80(0.08) ^b	0.90(0.07) ^c	0.69(0.04) ^a	29.08 ^{***}

Note. a, b, c, and d indicate group differences based on results of Tukey HSD (Honestly Significant Difference) test.
 $P < .05$, $**p < .01$, $***p < .001$.

Predicting Children's Social Competence

Regression analysis was used to determine predictors of children's social competence as reported by both parents and teachers. As a result of differences in children's and teachers' behaviors between classrooms, a linear mixed model was first employed using child age and gender, family income, and parent education as control variables. However, results of the linear mixed model did not find any statistically significant predictors. Therefore, multiple regression analysis was used to determine whether observed creative movement or ability to move (TMM) were predictors of children's social competence. In the multiple regression model, the creative movement composite and teacher-reported children's movement ability (TMM) were used to predict children's social competence, controlling for child age and gender, family income, and parent education (see Table 6). Parent-reported social competence (PSCBE and PDECA) was predicted by teacher-reported children's ability to move, but not children's observed creative movement. Parent-reported social competence (PSCBE and PDECA) was also predicted by parents' education levels. Teacher-reported social competence (TSCBE and TDECA) was predicted by teacher-reported children's movement ability (TMM) and children's observed creative movement.

Table 6
Predicting Children's Social Competence

Variable	<i>B</i>	<i>SE</i>	<i>t</i>	Partial Eta ²
Parent-reported SCBE	<i>F</i> = 3.91**			
Creativity composite	0.22	0.38	0.59	<.01
TMM	0.19	0.05	3.69***	.24
Child age	<.01	<.01	0.75	.01
Family income	-0.04	0.03	-1.21	.03
Parent education	0.16	0.06	2.88**	.16
Child gender (female)	-0.07	0.10	-0.69	.01
Parent-reported DECA	<i>F</i> = 3.66**			
Creativity composite	0.08	0.32	0.26	<.01
TMM	0.15	0.04	3.43***	.23
Child age	<.01	<.01	0.97	.02
Family income	-0.01	0.03	-0.50	<.01
Parent education	0.13	0.05	2.78**	.16
Child gender (female)	-0.01	0.09	-0.17	<.01
Teacher-reported SCBE	<i>F</i> = 5.87***			
Creativity composite	1.17	0.56	2.09*	.09
TMM	0.37	0.08	4.81***	.36
Child age	-0.02	0.01	-1.93	.08
Family income	<.01	0.05	-0.04	<.01
Parent education	-0.09	0.08	-1.14	.03
Child gender (female)	-0.05	0.15	-0.36	<.01
Teacher-reported DECA	<i>F</i> = 7.13***			
Creativity composite	1.01	0.44	2.33*	.12
TMM	0.33	0.06	5.57***	.43
Child age	<.01	<.01	-0.61	<.01
Family income	0.01	0.04	0.28	<.01
Parent education	-0.04	0.06	-0.67	.01
Child gender (female)	0.14	0.12	1.18	.03

Note. Teacher-Reported Child Movement Ability = TMM; Social Competence Behavior Evaluation = SCBE; Devereux Early Childhood Assessment for Children Ages 2 through 5 years = DECA; Creative movement composite = Creative movement participation, Child encourage children, and Child engage teacher.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Chapter 4: Discussion

The current study examined whether preschool children's participation in movement and creative movement activities was related to their social competence reported by parents and teachers. This study used the Social Competence Behavior Evaluation, Short Form (LaFreniere & Dumas, 1995), The Devereux Early Childhood Assessment (LeBuffe & Naglierei, 1999), a modified music and movement scale from High/Scope's Child Observation Record (HighScope Educational Research Foundation), and *Creative Movement Activity/Participation Scale* designed by the researcher. While previous studies have implemented creative movement programs in the early childhood classrooms, they often use outside dance or dance therapy instructors (Bannon, 1994; Gottlob & Oka, 2007; Greer-Paglia, 2006; Lobo & Winsler, 2006; Oshuns, 1977; Von Rosseberg-Gempton, et al., 1999; Ylönen & Cantel, 2009); the current study, however, observed preschool children and their classroom teachers during movement activities planned the teachers. The current study found that children's ability to move and observed creative movement were related to their social competence. The study also found that the children were not consistently creative in their movements; additionally, observation of teachers revealed that they were not encouraging creativity during the movement activities. Also, when teachers used instructional media, physical cues, and verbal instruction, children were more likely to participate in the movement activities, but less likely to engage creatively.

In regards to children's social competence, parents rated children significantly higher than the teachers did on both measures. This is not uncommon and can be attributed to several factors. When standardizing the DECA, researchers found that parents often rate higher on the DECA than teachers, and therefore have higher rating norms (The Devereux Early Childhood Initiative). Parents and teachers have different relationships with children and often spend their time in very different environments (Gray, Clancy, & King, 1981; Webster-Stratton & Lindsay, 1999). In general, children may be with a larger number of peers in the preschool environment than at home, offering teachers a better chance to witness social interactions and providing them with a better frame of reference when assessing children's social competence (Gray, Clancy, & King, 1981). Also, children may simply respond differently to their peers in the classroom environment than their siblings at home, and in some cases they may not have siblings at all. In addition, teachers typically receive training in child assessment and have more knowledge of child development than parents (Gray, Clancy, & King, 1981).

This study found positive relationships between teachers' behaviors and children's movement and creative movement participation. During the observed movement activities, children spent about three-quarters of the time engaged in the activity, but less than a quarter of the time being creative. This is possibly a reflection of the teachers' behaviors and their potential influences on children's creativity. Previous research found that teachers with positive beliefs about creativity had children with more creative outcomes (Farella, 2010); this may play a role in the teacher's encouragement of creative movement. Unfortunately, the current study found no relationship between teachers' encouragement of creativity and children's creative movement. Furthermore, the teachers spent so little time actually encouraging creativity and a significant amount of time giving verbal instruction and providing physical cues, that there may

not have been enough verbal encouragement to get a clear picture of how it could affect children's creativity. While the use of verbal instruction and physical cues may have encouraged the children to participate in the activities, they can be stifling to the creative process. It is possible that teachers feel the need to use verbal instructions to ensure that the children remain engaged for the duration of the activity. Additionally, children may feel as though they are supposed to imitate a teacher when he or she is giving physical cues, and thus they do not engage in creative movement. Previous research has found that creativity is often discouraged in order to have children conform, which may have played a role in the current study with the use of verbal instruction and physical cues (Sternberg & Lubart, 1996). The use of verbal instruction could also imply to the children that there is a right or wrong way of participating in the activity, which is not an element of creative movement, and thus discourages creativity (Bannon, 1994; Lobo & Winsler, 2006; Lukes, 2010).

In addition to teacher behaviors, the teacher's song choices may have influenced the lack of creative movement observed in this study. While there was a low percentage of instructional music used in the activities, there were songs that have implied movements, or movements that have been used over the years; examples of these songs include: "The Wheels on the Bus", "Head, Shoulders, Knees, and Toes", "I'm a Little Teapot", and "Five Little Monkeys." When using these songs, it was not unusual for the teachers in the current study to give physical cues that the children would follow. Many of these songs have been given hand gestures or dance movements that have become popular and are well-known among early childhood teachers. In the current study, the children were more likely to imitate the teacher when she used physical cues, such as those associated with these songs. Another possible factor in lack of creative movement engagement due to song choice could be that songs chosen by the teachers are ones

they use every day in the classroom. This lack of novelty in the songs may have resulted in children growing tired of participating, and therefore choosing to follow the instructions of the media, the teachers' instructions and physical cues out of boredom.

The moderate relationship between children's positive affect and teacher-reported social competence is supported by previous research which has found that positive emotions are positively related to observed and reported social competence (Denham, McKinley, Couchoud, & Holt, 1990; Hayden, Klein, Durbin, & Olino, 2006; McDowell & Park, 2005). Positive emotions in peer interactions reinforce relationships with peers and thus children have more opportunities for social interactions and improving their social skills and social competence (Sallquist, et al., 2009). This may also explain the relationship among positive affect, movement participation, and creative movement participation. Children who are enjoying the activity and the time with their peers may be more likely to participate in the activities.

Teacher-reported children's ability to move had a positive relationship with parent and teacher-reported social competence. A third factor that could influence this relationship is child age; as children age, their gross motor and coordination skills, presumably increase. Also, as children age, their social competence levels increase before becoming stable (Obradović, et al., 2006), and parents and teachers are more likely to give them higher scores on a social competence scale. One other possible explanation of this relationship is the nature of the questions on both the *Music and Movement Scale (COR)* and the social competence scales. The *COR* items use words and phrases such as "imitates" or "follows instructions." The social competence scales assess behaviors such as how children control their anger, cooperate with others, and problem solve. In the eyes of a teacher, these behaviors may be the idea of a well-

behaved child; thus, they have related the child's ability to move to their social competence, based on these particular items.

Parent-reported social competence scores were positively related, as were teacher-reported social competence scores. Since both measures were presumably completed by the same parent and the same teacher, the relationship is likely due to this consistency. However, parent and teacher-reported social competence scores were only minimally related, which could be due to the nature of the differences between parent and teacher-reported social competence scores, as discussed previously (Gray, Clancy, & King, 1981; The Devereux Early Childhood Initiative; Webster-Stratton & Lindsay, 1999).

The current study also found differences in children's and teachers' behaviors among the four classrooms. The children in the two classrooms with the lowest teacher-rated children's ability to move may have been the youngest children in the study. However, differences could also be attributed to teachers' varying perceptions of the children in their classroom. Children in one of the classrooms had significantly less positive affect than two of the others classes, and also had the lowest participation rates. The children in this same classroom were exposed to significantly less media during the activity, whereas children in the classrooms with the highest use of media also had the most positive affect. Perhaps the amount of media used and song choices effected children's emotions and willingness to participate during the activity.

There was quite a bit of variation between the teachers, suggesting that each teacher has their own way of planning and implementing movement activities. Between the teachers there were differences in the amount of instructional media that they used. For example, the teacher who used the most instructional media was the same teacher to use the most media in general. Although the use of instructional media, or media with implied movements, was not the

preference of the researcher, the same teacher who used the most instructional media, also had significantly higher participation rates than those from other classrooms. Though not a significant difference, these same children also had higher rates of creative movement participation. The teacher from this same classroom had a significantly higher use of physical cues during the activities as well. It appears that while some of the behaviors of this teacher were not what the researcher anticipated, she was perhaps the most engaged in the activity with her children, which may explain the higher rates of child participation from this classroom. It is possible that the teachers' affect, which was not observed in the current study, may have also played a role in children's emotions and participation in the activity. The differences among teachers may also be attributed to their enthusiasm for their job, classroom management techniques, and their beliefs about the importance of creativity or the importance of creative movement activities. Previous research found that children of teachers who had more positive beliefs about their profession and creativity express more creativity in the classroom (Farella, 2010).

While previous studies have found that creative movement can increase children's social competence through intervention programs (Greer-Paglia, 2006; Lobo & Winsler, 2006), the present study found that children's current creative movement participation in the preschool classroom is related to their social competence. Though a bivariate correlation was not found between children's social competence and creative movement, the multiple regression model, which controlled for other possible influences on children's social competence (e.g. child age, child gender, family income, and parent education), showed that children's creative movement predicted children's teacher-reported social competence scores. This supports previous research that has found that creative movement stimulates the development of social-emotional skills

(Graham, n.d.; Gottlob & Oka, 2007; Lorenzo-Lasa, et al., 2007) and encourages socially acceptable ways of expressing emotions (Bannon, 1994; Gilbert, 1992; Lorenzo-Lasa, et al., 2007). However, this study found that children's ability to move, or their coordination skills, was the strongest predictor of both parent and teacher-reported social competence. Interestingly, parent-reported social competence was also predicted by the parent's education level. Parents with higher levels of education may have more positive perceptions of their children's abilities, including their social skills, than others.

Limitations and Implications

While the current study contributes to the limited knowledge regarding young children's creative movement, and specifically the link between creative movement and social competence, there were certain limitations that should be noted. First, this study consists of only 51 participants from a NAEYC accredited program in a college town. This limits the ability to generalize the findings to other early childhood programs that may not be accredited, provide poor quality care, or serve economically disadvantaged children. Over half of the participating children came from middle- or upper-class families. These familial demographic characteristics may contribute to higher levels of social competence in children, in comparison to children from lower SES populations, where children are often found to have lower social competence levels and are considered at-risk in regards to social development (Gouley, et al., 2008; Larsson & Frisk, 1999; Webster-Stratton & Hammond, 1998).

A second limitation was the lack of information about teachers' education, knowledge of creativity, their beliefs on the importance of creativity and creative movement, and perhaps information on how they implement creative movement in their classrooms; this would be collected in addition to observational data because the study found behavior differences among

teachers. Another limitation to this study was allowing the teachers to select their own music. The current study allowed each teacher to choose their own music for the activities; however, in the future, providing music chosen by the researcher for the teachers would maintain consistency in the study and could potentially eliminate issues with instructional media and the use of songs with implied movements. Eliminating this variation in song choice among classrooms could also allow future research to focus more on children's creative movement and their social competence levels as opposed to primarily focusing on varying teacher behaviors. The researcher would also have the opportunity to choose songs that are novel to the children, and therefore, are less likely to be used in the classroom on a daily basis.

Finally, the *Creative Movement Activity/Participation Scale*, designed for the purposes of this study, will need to be further developed. This was the first time it was used, and to the knowledge of the researcher it is the only creative movement observation measure of its kind. Additional teacher behaviors should be added to assess their positive and negative affect, their use of negative comments, and levels of active participation in the movement activities. Additional observation variables for the children may also be addressed, such as children's verbal communication during the activity. It is also important to establish more inter-rater reliability in future studies using the observation measure.

This study offers implications for further research as well as practices in early childhood education. This research supports the link between creative movement and social competence of young children, but offers a new way of measuring this connection through the use of the *Creative Movement Activity/Participation Scale*, designed by the researcher. Previous studies have looked at the effects of a creative movement program (Greer-Paglia, 2006; Lobo & Winsler, 2006), but not at the behaviors of the teachers and children involved. The current study

is also, to the best knowledge of the researcher, one of the first creative movement studies to use classroom teachers as opposed to outside dance instructors (Bannon, 1994; Gottlob & Oka, 2007; Greer-Paglia, 2006; Lobo & Winsler, 2006; Oshuns, 1977; Von Rosseberg-Gempton, et al., 1999; Ylönen & Cantel, 2009). By observing children and teachers in the early childhood classroom setting, this study provided evidence that teachers' behaviors influence children's creativity. This is important not only for future research design in the area of creative movement, but also in the early childhood classroom.

The current findings also suggest that teachers need more training in the area of creativity and how to implement creative activities (e.g. creative movement activities) in the classroom. It is important though to allow teachers to experience the differences between creative and non-creative activities; this may be done during training sessions. Learning how to encourage creativity, what sort of activities stimulate creative thought, how to design a creative environment that stimulates creative thought and activities among the children, and how to implement these ideas are important for the preschool curriculum. This study, and others (Greer-Paglia, 2006; Lobo & Winsler, 2006), have found a link between children's creative movement and social competence. In turn, children's social competence levels are linked to their school readiness, academic achievement, later social adjustment, and conduct problems (Denham, et al., 2003; Goyley, et al., 2008; Ladd, 2005; Lobo & Winsler, 2006; Raver & Zigler, 1997; Rose-Krasnor, 1997; Webster-Stratton & Hammond, 1998), underscoring the importance of creative activities for preschool children.

Chapter 5: Conclusions

The results of this study found that children's creative movement predicted their social competence when controlling for child age and gender, family income, and parents' education. However, creative movement was not a strong predictor of social competence, but rather the child's ability to move was a better predictor of their social competence. While children were not as creative as the researcher anticipated, teachers' behaviors, such as song choice, use of verbal instruction, and physical cues, influenced children's creative movement participation. The findings suggest the importance of creative movement activities in the preschool classroom, as well as pre- and in-service training for teachers on how to implement these activities and how to encourage creativity. Future research should consider further developing the *Creative Movement Activity/Participation Scale*, collecting teachers' beliefs regarding creativity, controlling for song choices of the teachers, and collecting additional information about children's physical development and abilities.

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APPENDIX A

Creative Movement Activity/Participation Scale

Target Child Activity

No= 0 Yes = 1

1. Does the child engage in the movement activity?
2. Does the child engage in creative movement?
- 2.0a Does the child imitate the teacher?
- 2.0b Does the child imitate other children?
- 2.0c Does the child follow instructions given by the music/media?
- 2.1a Does the child encourage other children to imitate their creative movement?
- 2.1b Does the child try to engage the teacher in the activity?
3. Does the child display positive emotions while engaging in the movement activity?
4. Does the child display negative emotions while engaging in the movement activity?
5. Does the child show interest in what other children are doing during the activity?
6. Does the child seem frustrated with others being in their space?

Teacher Activity

No = 0 Yes = 1

7. Does the teacher use any sort of media during the activity?
- 7.1 Does the teacher use a song that gives instructions on how to move to the music?
8. Does the teacher encourage creativity/individual expression?
9. Does the teacher give verbal instruction on how to move to the music?
10. Does the teacher give physical cues on how to move to the music?

APPENDIX B

Classroom # _____ Camera # _____ Video # _____

McLaughlin

The Effects of Creative Movement Activities in the Preschool Classroom on Children's Social Competence

Child ID: _____

Coder ID: _____

Target Child 1: _____

Target Child 2: _____

Target Child 3: _____

Target Child 4: _____

Target Child 5: _____

Target Child 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	1	2	3	4	5	6	1	2	3	4	5	6
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Office for Research
Institutional Review Board for the
Protection of Human Subjects

THE UNIVERSITY OF
ALABAMA
R E S E A R C H

November 1, 2010

Hyun-Joo Jeon
Dept. of Human Development and Family Studies
College of Human Environmental Sciences
Box 870160

Re: IRB#: 10-OR-340 "The Effects of Creative Movement Activities in the
Preschool Classroom on Children's Social Competence"

Dear Dr. Jeon:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies

Your application will expire on October 31, 2011. If your research will continue beyond this date, complete the relevant portions of Continuing Review and Closure Form. If you wish to modify the application, complete the Modification of an Approved Protocol. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, complete the appropriate portions of the Continuing Review and Closure Form.

Please use reproductions of the IRB approved stamped consent forms to obtain consent from your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

Good luck with your research.

Sincerely,