MULTIPLE METHODS OF EXAMINING CHILD AND STAFF PERCEPTIONS
OF INTERACTIONS BETWEEN STAFF & CHILDREN IN AFTER-SCHOOL
PROGRAMS

A Thesis in
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by

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ABSTRACT

Using multiple methods, such as self-report measures and direct observations, not only provides more methodological rigor but also elucidates inconsistencies within the data (Olson, 1977; Hudley, 2006). Comparing observation reports to the perceptions of those directly involved in the environment can provide helpful insights into understanding staff-child interactions and program climate in after-school programs. However, organizations and practitioners may not have the capacity to conduct multiple assessments and often times can only select one measurement tool, if any at all.

Although independent observations are powerful tools, they can be very costly as well as time consuming. Self-report measures may represent a workable solution to assessment for organizations faced with limited resources. Research has demonstrated the value of using evaluation tools such as child and staff self-report measures to assess the quality of staff-child interactions within after-school programs (Hall & Dilworth, 2005; Rosenthal & Vandell, 1996), but it has not been determined if one is a better indicator or more important than the other in depicting the after-school program setting.

In this current investigation, both children’s and staffs’ perceptions of after-school staff-child interactions were compared to the direct observations completed by independent observers to examine alignment with observational ratings. The perceptions of staff and children on staff-child interactions were compared to each other to determine if a correlation exists between their perceptions of the interactions between staff and children in after-school programs.

A moderate negative correlation between staff and child perceptions was found ($r = - .527, p < .020)$. Thus, staff perception was found to be opposite that of children’s
perception. Even after controlling for effect of treatment vs. “business as usual” sites, the correlation between staff and child items was still moderately and negatively correlated ($r = -0.557, p < .016$). A moderate negative correlation was also found between the perceptions of staff and the independent observers ($r = -0.562, p < .01$), however the results indicate that staff and the independent observers rated staff-child interactions in opposite directions of one another even after controlling for treatment vs. “business as usual” sites ($r = -0.537, p < .05$). There was not a significant correlation found between the perceptions of children and the independent observers ($r = 0.237, p > .05$), however after controlling for the effects of treatment vs. “business as usual,” a low correlation was found between the perceptions of children and the independent observers ($r = -0.463, p < .05$). Therefore, in this current investigation the children were the better indicators of staff-child interactions in after-school programs when compared to the independent observers.
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Chapter 1

LITERATURE REVIEW

Childhood is a critical developmental period in the lifespan. There are numerous developmental tasks that children (ages 8-10) must master. “The early development of motor skills, language, self-confidence, play, and problem-solving abilities, for example, are relevant for understanding competence in the school years” (Masten & Coatsworth, 1998, p. 207). Providing programs that assist children with addressing these tasks and, in some cases, coping with daily stress is critical. Prevention programs are offered in numerous settings and aim to improve multiple life skills, such as social skills, academic success and self-confidence (Durlak & Weissburg, 2007; Riggs & Greenberg, 2004a).

Decreasing risky behaviors and building resiliency are also main objectives for prevention programs (Masten & Coatsworth, 1998; Tebes et al., 2007). Furthermore, multiple prevention programs are available to enhance the lives of children, but often times, it can be difficult to determine the most appropriate settings for out of school prevention programs in particular (Eccles & Gootman, 2002; Riggs & Greenberg, 2004a). After-school programs may prove to be a suitable environment for implementation of prevention curriculum and programming given the amount of time and sheer number of youth participating in after-school programs.

Previously, public awareness and funding of after-school programs had grown due to the increase in childcare needs of working parents and the data supporting the high delinquency rates during the after-school hours (Gottfredson, Gerstenblith, Soule, Womer & Lu, 2004): however, currently after-school programs do not have the funding to support the high number of children needing after-school care. The Afterschool Alliance
(2009) reports that a total of 8.5 million children in grades K-12 participate in after-school programs but 18.5 million children in grades K-12 would like to participate in after-school programs if they were more readily available.

After-school programs are greatly needed and provide a safe and supervised environment for children and youth, but results suggest that the effects that after-school programs have on child and youth outcomes are varied (Riggs & Greenberg, 2004a; Scott-Little, Hamann & Jurs, 2002). The impact of participating in after-school programs are dependent upon program structure, type of program, and quality of staff-child interactions (Cross, Gottfredson, Wilson, Rorie, & Connell, 2010; Durlak & Weissburg, 2007; Riggs & Greenberg, 2004a). Research has found that children participating in after-school programs have had positive impacts on their social-emotional outcomes (Durlak & Weissburg, 2007; Pettit, Liard, Bates & Dodge, 1997; Riggs & Greenberg, 2004a;) and academic outcomes (Durlak & Weissburg, 2007; Hock, Pulvers, Delsher & Schumaker, 2001; Riggs & Greenberg, 2004b). Research has also shown that participation in after-school programs may increase negative peer interactions, decrease academic success, and encourage criminal activity (Mahoney, Stattin & Lord, 2004; Mahoney, Stattin & Magnusson, 2001; Vandell & Corasaniti, 1988).

In order to determine if there exists positive effects and outcomes from children participating in after-school programs, evaluations of after-school programs must be completed with more rigor and thoughtfulness (Durlak & Weissburg, 2007; Scott-Little, Hamann, & Jurrs, 2002; Vandell, Reisner, Brown, Pierce, Dadisman, & Pechman, 2004). For instance, after evaluating 73 reports of after-school programs, Durlak and Weissburg (2007) found that after-school programs implementing evidenced-based skills-training
programs specifically promoting social and personal skills, were significantly more effective in producing positive outcomes for children, compared to those after-school programs that did not implement evidenced-based skills-training programs. As we attempt to improve programs, the organizations offering these programs must use evaluation tools that accurately measure the after-school setting and, in particular, the interactions within the after-school setting. This is challenging due to the lack of funding and time, thus organizations are forced to be selective in choosing measurement instruments for their accountability efforts.

For these reasons, it is important to determine what measurement instruments are most effective in depicting the after-school setting. Scott-Little, Hamann, & Jurrs (2002) conducted a meta-evaluation of evaluation methodologies used to examine after-school programs and found that a variety of methodologies were used. Program participants such as students and staff were most commonly used as the data sources and although interviews with participants were conducted most frequently, surveys followed as the next most common technique. Direct observations were found to be used the least, which may be due to the costs involved in conducting observations.

Scott-Little and colleagues (2002) also found that most evaluations were completed by outside evaluators, “suggesting that program funders or other factors, such as limited internal capacity to conduct evaluations, are leading programs to seek outside help for evaluations” (p. 398). Data from such evaluations allows for program effectiveness to be assessed, which provides stakeholders and funding sources information on whether or not the program should be continued. Scott-Little et al. (2002) note the limitations forced upon small local after-school programs in using outside
evaluators, but they suggest that using valid and reliable measures to assess program outcomes would promote “buy-in”, increasing program support and funding.

The Present Study

Research has shown the importance of using child and staff self-report measures to assess the quality of staff-child interactions (Hall & Dilworth, 2005; Rosenthal & Vandell, 1996). Direct observations by independent observers have also been found to assist researchers in examining change, as well as in identifying the strategies and tools necessary to strengthen after-school programs (Hudley, 2006; Irwin & Bushnell, 1980; Rosenthal & Vandell, 1996). Both children and staff perceptions are helpful in understanding the after-school setting, but it has not been determined if one is a better indicator than the other in depicting the after-school program setting.

In this current investigation, both children’s and staff’s perceptions of after-school staff-child interactions were compared to the direct observations of independent observers to determine who is more closely aligned with the observer’s ratings. These findings are helpful in identifying whether the perceptions of children or program staff are better indicators of independent observations of staff-child interactions with in after-school programs. The perceptions of staff and children on staff-child interactions were also compared to each other to determine if an association exists between their perceptions of the interactions between staff and children in after-school programs. The findings of this study could have direct implications to an organizations’ capacity to assess their effectiveness in terms of determining what assessments are more important to perform in understanding and strengthening after-school programs.
Impacts of After-school Programs

Studies have shown that participation in after-school programs have a direct relationship to positive social-emotional outcomes (Durlak & Weissburg, 2007; Pettit, Liard, Bates & Dodge, 1997; Riggs & Greenberg, 2004a) and improved academic success (Durlak & Weissburg, 2007; Hock, Pulvers, Delsher & Schumaker, 2001; Riggs & Greenberg, 2004b). A study conducted by Riggs and Greenberg (2004b) found that migrant Latino children doubled their achievement scores in every subject, after attending an after-school program for nine months. After-school programs focusing on effective decision-making skills may also prevent drug use. Tebes et al. (2007) study of an urban after-school setting found that youth participating in the program were more likely to see drug use as dangerous and damaging, and they were less likely to use alcohol, marijuana, or other substances after participating in the program for one year. After evaluating the findings from 73 after-school programs depicted in forty-nine reports, Durlak and Weissburg (2007) found that children’s feelings and attitudes, indicators of behavior adjustment and academic functioning all progressed considerable due to participating in after-school programs implementing evidenced-based skills-training programs that promote the development of social and personal skills.

While some studies show the benefits of participating in afterschool programs, such as increased academic success, improved social skills and decreased risky behaviors among children (Durlak & Weissberg, 2007; Hock, Pulvers, Delsher & Schumaker, 2001; Pettit, Liard, Bates & Dodge, 1997; Riggs & Greenberg, 2004a; Riggs & Greenberg, 2004b), other studies have found no and sometimes harmful effects (Mahoney, Stattin & Magnusson, 2001; Mahoney & Stattin, 2000; Mahoney, Stattin & Lord, 2004). For
example, Mahoney, Stattin and Lord (2004) conducted a two-year longitudinal investigation of adolescent participation in youth recreation centers and the development of antisocial behavior. Participation in youth recreation centers was associated with steady and high anti-social behavior and limited or no participation was associated with little to no anti-social behavior. These findings are similar to those of Mahoney, Stattin and Magnusson (2001), who found that boys who attended the program regularly showed an increase in juvenile criminal activity. The findings from both of these studies provide evidence of the importance of the organizational structure for the type of impact an after-school program has on youth. Thus, because youth recreation centers offered little to no planned activities, no opportunities for skill building and consisted mostly of unstructured leisure time it lead to steady and high anti-social behavior (Mahoney et al., 2001; Mahoney et al., 2004).

After-school programs have also been found to have no effects, as well as harmful effects on elementary aged children (Gottfredson et al., 2004; Vandell & Corasaniti, 1988). For instance, Gottfredson and colleagues (2004) studied the effects of 14 after-school programs on reducing delinquent behavior and found that besides an increase in supervision, participation had no effect on decreasing delinquent behavior or on any other measured variables for the elementary aged children. However, a reduction in delinquent behavior was found for participating middle school youth, which was probably due to educating the youth on substance use and positive peer relationships (Gottfredson, 2004). Vandell & Corasaniti (1988) evaluated 150 Caucasian, middle-class third graders participating in different types of after-school care programs, results indicated that children attending after-school day care centers had more negative peer interactions,
lower grades and did poorer on standardized tests, than those children who did not attend after-school day care centers. The effects of after-school programs depend largely on program staff. Staff are responsible for implementing prevention programs and creating a positive program climate. Therefore, the interactions between staff and participating children cannot be overlooked.

**Importance of Staff**

Past research has examined the importance of the relationship between caring adults and children at risk. Children exposed to harmful environments may be at risk for developmental delays and problem behaviors but if exposed to protective factors, such as a relationship with a caring adult, children are more likely to be resilient when faced with an unhealthy environment or experience (Kumpfer 1999; Masten & Coatsworth, 1998; Perkins & Borden, 2003). After evaluating more than 25 years of resiliency research, Masten and Coatsworth (1999) found that although there are many characteristics associated with resilient children and adolescents, caring adult relationships and successful academic performance were found to have the most influence on fostering children’s resilience. Caring relationships with non-parental adults provide a frame of reference and a model for how one is supposed to act (Perkins & Caldwell, 2005). Nonjudgmental love and mentoring are the characteristics of these caring relationships.

After-school programs can foster positive youth development by encouraging program staff to interact with youth in positive ways, use constructive and positive behavior management techniques, create a optimistic and safe program climate and provide activities that engage youth (E. Smith 2007). Grossman, Walker, and Raley
(2001) suggest that after-school programs offer children relationships with caring adults, pro-social interactions among peers, and promotion of skills. C. Smith and colleagues (2010) argue that staff practices, such as offering emotional support, providing structured interactions with people, ideas and materials, and engaging youth in cognitive processes have a substantial influence on youth development. Miller (2003) suggests that after-school programs that promote positive adult/child relationships by involving youth in the decision-making process, and providing a positive program climate are the most successful in preventing negative outcomes for youth.

Children participating in after-school programs interact with program staff on a daily basis and the quality of those interactions can impact youth outcomes (Grossman et al., 2001; Loosli, 2000; Miller, 2003; Smith et al., 2010). Research has shown that positive staff-child interactions enhance relationships with peers and family, increases academic success and decreases risky behaviors among youth (Grossman & Tierney, 1998; Pierce, Hamm, & Vandell, 1999). Pierce, Bolt, and Vandell (2010) found that “children who attended after-school programs in which the staff were more positive posted gains in their reading and math grades relative to children who attended after-school programs in which staff were less positive” (p. 390). Pierce, Hamm, and Vandell (1999) studied the connection between children’s experience in after-school programs and internalizing and externalizing problems. They found that boys showed fewer internalizing and externalizing problems when they experienced positive interactions with program staff. Negative staff-child interactions can encourage participation in harmful behavior and have been found to encourage participation in risky behaviors and predict poor academic performance (Hall & Dilworth, 2005; Pierce, Hamm, & Vandell,
In a study conducted by Pierce and colleagues (1999) negative staff interactions were associated with poor achievement in math and reading for boys.

As noted earlier, there are many factors that impact the quality of staff-child interactions, such as the number of staff working in after-school programs and the educational qualifications of staff. The number of staff in after-school program can vary from one staff member to several. Rosenthal and Vandell (1996) found that child-staff ratios were different at every site and ranged from 5:1 to 20:1. The results from Rosenthal and Vandell study found that “negative staff-child interactions were more frequent when child-adult ratios were larger and when staff had less formal education” (p. 2440). The child participants perceived staff as less supportive when large enrollments and negative staff-child interactions were present.

Staff education and qualifications can also have a direct effect on the quality of after-school programs. The education levels of staff vary in after-school programs (Cross, Gottfredson, Wilson, Rorie, & Connell, 2010; Rosenthal & Vandell, 1996; Seligson, 1999). Teachers or school personnel sometimes serve as after-school staff and/or outside members not associated with the school serve as staff (Riggs & Greenberg, 2004a). While evaluating 30 different childcare centers, Rosenthal and Vandell (1996) found that staff education levels ranged from a high school diploma to a bachelor’s degree. Studies evaluating the effects of after-school program quality, found that staff who received large dosages of training, as well as staff with a college education or higher provided more quality experiences for participating youth (Cross et al., 2010; Vandell & Shumow, 1999). Results from the Massachusetts Afterschool Research Study (2005) indicate that staff with high levels of education, were rated considerable higher on
components of program quality, such as staff engagement, youth engagement, activities, and homework assistance compared to staff with lower levels of education. After-school staff that hold a bachelor’s degree usually have more training and experience working with children, which may influence program quality and climate (Riggs & Greenberg, 2004a).

It is imperative to maintain qualified and competent staff in order for after-school programs to be successful and prevent program instability (National Institute on Out-of-School Time, 2008). However, many after-school programs function on low budgets and cannot manage to pay their staff competitive salaries (Riggs & Greenberg, 2004a). Limited funds may increase the likelihood of staff turnover and force programs to rely on unqualified staff. A recent workforce study conducted in 2006 found that although 80% of youth workers are happy with their jobs, low wages impacted staff turnover rates considerably (Yohalem & Pittman, 2006). Halpern (1992) found that low salaries and difficulty of the job influenced high turnover rates among after-school staff working with disadvantaged youth. Staff turnover can have a substantial influence on disadvantaged youth because it creates instability and adds to the frequent disruption that occurs throughout their life (Halpern, 1992). Riggs and Greenberg (2004a) suggest that employing under-paid program staff may lead to instability in the after-school program setting because it increases the likelihood of staff turnover, creating inconsistency and fragmented interactions between staff and participating children (Riggs & Greenberg, 2004a). Although this may be difficult to overcome, after-school programs that are able to provide staff with competitive wages and offer benefits will be more likely to retain qualified staff. Maintaining program staff is critical to engaging children and youth in
after-school program activities, which in turn will impact the quality of after-school programs (Hall, Israel, & Shortt, 2004). Although, it would be ideal for after-school programs to hire qualified staff, as well as pay staff competitive wages, limited funds and budgets do not always provide the financial means to do so (Seligson, 1999).

Quality of staff-child interactions, number of after-school staff, staff educational background, low staff turnover, maintaining qualified staff and staff practices all influence the developmental outcomes of children attending after-school programs (Cross et al., 2010; Pierce et al., 2010; Smith et al., 2010; Pierce, 1999; Rosenthal & Vandell, 1996). Assessing these interactions and staff practices is important in understanding and strengthening the after-school program setting. Several methods are available to assist in measuring the interactions between staff and children in after-school programs.

Measuring the Interaction between Staff and Children

There are multiple ways a researcher can measure the relationship between caring adults and children. Both observations and self-report instruments have been used to study behavior change and program climate among the social sciences field. A question that social scientists have been challenged with for years is “whose definition of reality is the most important, the individuals involved in the relationships (the insiders) or those who externally observe those individuals (the outsiders)” (Olson, 1977, p.97) and most social scientists would agree that using multiple methods not only provides more methodological rigor but also explains inconsistency within the data (Olson, 1977; Hudley, 2006). Using multiple methods, such as self-report and observational measures
provides a comprehensive perspective on relationships and settings by offering information on the insiders and outsider’s point of view (Olson, 1977).

However, many organizations and practitioners are faced with time and funding constraints and often times can only select one measurement tool, if any at all. Therefore, in order to create program accountability with in after-school programs, organizations and practitioners must be careful in selecting a measure by utilizing the most accurate and cost effective tool. Self-report measures are widely used and provide organizations, and practitioners with information on the perspectives of those directly involved in the environment (Olson, 1977; Schwartz, 1999). Self-report measures can be less expensive, less time consuming, and easier to complete.

Self-reports have been used as central resource throughout the psychology and social sciences field to study participant thoughts, feelings and behaviors (Schwartz, 1999). Methods of self-report depend on participants to offer information about their perceptions of the self or others (Olson, 1977). Even though self-report measures are one of the most highly used measurement tools, some may criticize the accuracy and creditability of the informants. Schwartz (1999) argues that self-report measures can be an unsound resource of data because often times it is unclear if the participants are interpreting the constructs in the same way the researcher intended them to be. The accuracy and truthfulness of the answer, relies heavily on the lucidity and clearness of the question, on the participants recollection of the behavior or interaction and on participants to report accurately and with candor (Baldwin, 2000; Schwartz, 1999; Jobe 2000).
Although self-report measures are subjective, they have proven to be helpful in depicting the perceptions of those directly a part of the environment. Child and staff perceptions of after-school programs can provide very important insights into after-school setting, because their perceptions are developed through daily interactions with one another (Hill & Dilworth, 2005). Several research studies have demonstrated the utility and significance of using child and staff perceptions to improve and strengthen after-school program quality (Rosenthal & Vandell, 1996; Hall & Dilworth, 2005).

Another way to examine the setting is through observations. Although direct observations are not based on daily experiences in the after-school setting, observations when completed by independent observers provide another perspective of the after-school program setting. This method can be quite useful in observing change, as well as in identifying ways to improve and strengthen after-school programs (Hudley, 2006; Rosenthal & Vandell, 1996; Irwin & Bushnell, 1980).

Children’s and staff’s perceptions of after-school programs have both been found useful in identifying strengths and weakness within a program and providing direction of strategies necessary to improve after-school programs. However, no research to date has examined the correspondence between children’s and staff’s perceptions of afterschool programs to assess if one is a better indicator to reality or more important than the other in understanding the interactions between staff and children in after-school programs.

Youth and child perceptions have been found to be related to both variables tested, as well as to observations of staff-child interactions (Hall & Dilworth, 2005; Rosenthal & Vandell, 1996). Mellor (2004) examined the capacity of 917 children and youth (ages 7-17) to complete the Strengths and Difficulty Questionnaire (SDQ) when
compared with the teacher and parent version of the SDQ. Mellor (2004) found that on the majority of scales, older children’s self-report were more congruent with their parents reports than were younger children self-reports. However, younger and older children were both found to be congruent with teacher reports. Rosenthal and Vandell (1996) investigated child (ages 8-11) perceptions of their relationships with program staff, relationships with other peers and program activities at 30 different school-aged child care programs using the After-School Environment Scale (ASES). They found that child perceptions were related to program observations on all variables tested. For example, those programs that had large enrollments were rated by participating children as having poor program climate ($r = - .26, p < .01$) and rated by observers as having more negative staff-child interactions ($r = .53, p < .01$). Also, children perceived programs as more positive when a variety of activities were offered ($r = .19, p < .05$).

Hall and Dilworth (2005) examined the relationship between the My View of My School-Age Child Care Teacher’s Scale (VOT) scale, which was created to measure children’s perceptions of after-school program staff, and the School-Age Care Environment Rating Scale (SACERS), which measures the school-age child care environment on seven sub scales such as, interactions, activities, safety policies and space and furnishings. They found a high association between the VOT scale and the overall mean SACERS score ($r = .806, p < .01$) and also found a high relationship between the VOT mean score and the SACERS subscale that assesses interactions between staff-child, staff-staff, and child-child ($r = .810, p < .01$). These results provide further support for the use of child and youth perceptions of staff-child interactions in after-school programs. Youth and children can provide critical insights into the after-school program
setting because their perceptions are developed from daily interactions with program staff (Hall & Dillworth, 2005; Rosenthal & Vandell, 1996).

Staff perceptions of staff-child interactions may also offer critical insights into improving the after-school program setting because of their daily involvement and interactions with children participating in after-school programs. Staff can provide information on how they perceive their interactions with children in the program, as well as how they perceive other staff members' interactions with children. This information can be used to improve and strengthen the interactions and relationships between staff and children in after-school programs. Although staff insights are helpful in understanding staff and child interactions in after-school programs, some may be concerned with the accuracy and candor of those self-perceptions. John and Robins (1995) argue that self-evaluations consist of both valid and bias elements that depend largely on individual differences in narcissism. For example, some individuals are more likely to report themselves as being more positive even if others are more likely to perceive them as more negative.

Currently, no studies have examined the alignment of after-school program staff self-reports with external observations or child reports, but multiple studies have examined the relationship between teacher-reports, external observations, and child-reports on the quality of teacher-child interactions. Several studies have found no relationship or association between teacher self-report and external observations (Howes & Ritchie, 1999; NICHD Early Child Care Research Network, 2003). However, a study completed by Douman et al. (2009) found a convergence between the perceptions of teachers and the external observers while evaluating the quality of teacher-child
relationships. Teachers who perceived their relationships with children as warm and open on the Student-Teacher Relationship Scale (STRS) were also perceived by external observers as having positive physical contact with their students on the Attachment Q-Set (AQS). Although there was a positive significant correlation, the association between the teacher reports on the STRS and observer reports on the AQS was weak (r = .36, p < .05).

Teacher reports of their relationships with children have also been found to be related to child reports (Douman et al., 2009). Douman and colleagues (2009) found a positive significant correlation between teacher and child reports of teacher-child closeness (r = .28, p < .05). The teachers who rated their relationship with children as warm on the STRS scale, were also rated by children as positive on the Feelings About School scale (FAS). While examining the relationship quality of teacher-child interactions, Howes et al. (1998) and Rey et al. (2007) found significant correlations between teacher and child reports. Howes et al. (1998) investigated the relationship quality of 55 children 9 years of age with their teachers and found associations between children’s perceptions of their relationships with teachers on the Children’s Expectations of Social Behavior Questionnaire and the teacher’s perceptions of their relationship with children on the Student-Teacher Relationship Scale (r = .33, p < .05).

Rey and colleagues (2007) examined the perspectives of 89 African American children in grades 3-6 using the Perceived Teacher Support subscale from the Survey of Children’s Social Support and the perspectives of their teachers using the Student-Teacher Relationship Scale. A significant moderate correlation was found between teacher and child perceptions of their relationship (r = .33, p < .01). These results suggest that both teachers and children perceive their relationships in a comparable manner,
which provides justification for the perceptions of both teachers and children (Rey et al., 2007).

In sum, as noted earlier, there is some evidence that teacher reports may not be associated with external observations (Howes & Ritchie, 1999; NICHD Early Child Care Research Network, 2003), while some evidence supports the relationships between teacher-reports with external observations and child reports (Douman et al., 2009; Howes et al., 1998; Rey et al., 2007). However, no studies have examined the association between after-school program staff self-reports, external observations and child self-reports. Further research examining the accuracy of teacher self-report as well as after-school program staff self-report is needed.

**Observations of Staff-Child Interactions**

Although child and staff perceptions are very useful in identifying information about staff-child interactions in after-school programs, direct observations have also been used as a central measurement tool to depict a setting climate for research, clinical assessment, and program evaluation (Hudley, 2006). Direct observations have been helpful in identifying behavior change in youth and staff-child interactions (Hudley, 2006; Rosenthal & Vandell, 1996). Irwin and Bushnell (1980) suggest that observations serve an important role in the learning process. Observations help form theories, find solutions to unanswered questions, offer truthful descriptions of behaviors or happenings, provide understanding to youth behaviors, and serve as an evaluation tool (Irwin & Bushnell, 1980).
Unlike those completing self-report measures, observational data collectors are trained by the research team on interpreting the constructs, as well as on the behavior and practices to look for during observations. Observational data collectors are also trained to conduct observations systematically across settings and environments, which provides evidence for their reliability and accuracy (Stuhlman, Hamre, Downer, & Pianta, 2009). Without standardized procedures and guidelines, observational data collectors may use inconsistent methods and guidelines while rating, which may affect the potential to compare and generalize the findings across settings (Hamre, Pianta & Chomat-Mooney, 2009; Pianta & Hamre, 2009; Stuhlman, Hamre, Downer & Pianta, 2009). Performing systematic observations allows those trained to use the tool to measure the setting and environment accurately (Stuhlman et al., 2009).

Observations are more likely to be unbiased when compared with self-report measures because observers are trained to remove their individual interpretation of the instrument constructs and behaviors observed. If the ratings of observational data collectors depended largely on individual interpretation, it would be difficult to determine what was happening in the setting. The standardization of observations can assist observers in avoiding ambiguity and individual interpretation among observational data collectors (Yohalem & Wilson-Ahlstrom, 2009). A method used to assess whether observations are conducted systematically and without bias is interrater reliability.

Interrater reliability can be defined as the extent to which different raters agree while observing the same program at the same time (Stuhlman et al., 2009; Yohalem & Wilson-Ahlstrom, 2009). If interrater reliability is high among observers, the ratings from their observations will be exact or very similar to one another. Assessing interrater
reliability is important because it identifies whether or not the ratings are reliable and accurate. Poor interrater reliability can “stem from ambiguous questions that leave a lot of room for individual interpretation and such ambiguity is not always immediately apparent from looking at the instrument” (Yohalem & Wilson-Ahlstrom, 2009, p.28).

Observational methodology proposes that a certain level of reliability be established in every research project (Hamre, Pianta, & Chomat-Mooney, 2009). Several procedures are available to establish and maintain high interrater reliability among observational data collectors. Training on the instrument constructs and system procedures can assist in this process. Providing opportunities for the observers to practice scoring can also be an important component of training. This allows observational data collectors to get to know the instrument and to familiarize themselves with the behaviors and practices to look for (Yohalem & Wilson-Ahlstrom, 2009). Often times, observational data collectors must meet certain guidelines before they are able to conduct observations in the field, such as reliability checks. Guidelines for reliability checks typically include passing a reliability test, conducting a certain number of observations and obtaining of a certain level of agreement with the instrument developers or members of the research team (Stuhlman et al., 2009). This is a way to measure the accuracy of observer ratings and to determine if they are ready to conduct observations in the field.

Observers are also trained on the parameters around observations, such as the start and stop times of observations, the time of day observations should occur and guidelines on the type of activity to observe (Stuhlman et al., 2009). Implementing drift procedures, such as holding regular meetings or conference calls during data collection to review individual items and discuss the guidelines for assigning ratings can also help
observational data collectors in maintaining high interrater reliability (Hamre et al., 2009; Yohalem & Wilson-Ahlstrom, 2009). Periodic drift testing reminds data collectors of system procedures and strengthens the consistency of the ratings with system protocol, as well as with other data collectors (Stuhlman et al., 2009).

There are many procedures available that assist researchers in establishing and maintaining interrater reliability among observational data collectors. Establishing interrater reliability assists researchers in measuring whether or not the information collected through observations is interpreted as the researchers intended. It also provides evidence that the setting is accurately depicted and the information gathered from observations can be used to understand youth behaviors and settings (Irwin & Bushnell, 1980).

Comparing observation reports to perceptions of those directly involved in the environment can provide helpful insights into accurate perceptions on program climate. Hudley (2006) states:

*Designs that incorporate multiple measures and multiple informants are likely to be the most authoritative in evaluating behavior change, the processes responsible for that change, and the long-term prospects for positive adjustment by the program participants* (p. 75).

Thus, pairing observations with self-report measures can assist researchers in understanding a more accurate picture of the environment; however, organizations and practitioners may not have the capacity to conduct multiple assessments. Although, independent observations are very powerful, they can be very expensive and time consuming. However, if organizations have the appropriate resources, such as program
staff or volunteers capable of conducting observations, they may not be as costly.

Provided they are accurate, self-report measures may represent a workable solution to assessment for organizations faced with limited resources. Self-report measures provide organizations, and practitioners with information on the perspectives of those directly involved in the environment (Olson, 1977; Schwartz, 1999) and, as noted earlier, can be less expensive, less time consuming, and easier to complete.

Thus, examining whether staff or children are more aligned with the independent observations of staff-child interactions with in after-school programs is an important step in providing direction to organizations wanting to assess their afterschool program. Organizations and practitioners can use this information to select an affordable and reliable evaluation tool, which can assist in program improvement and in strengthening the relationships between staff and children in the after-school setting.

Conclusion

Research has shown the important impact that caring adult relationships and interactions can have on child outcomes (Kumpfer 1999; Masten & Coatsworth, 1998; Perkins & Borden, 2003). Positive interactions and relationships among after-school program staff and children have been found to decrease risky behaviors, strengthen academic success, and improve relationships with peers and family (Grossman & Tierney, 1998; Pierce, Hamm, & Vandell, 1999). Negative child/staff interactions have been found to predict poor academic achievement and engagement in risky behaviors (Pierce, Hamm, & Vandell, 1999; Hall & Dilworth, 2005).
The effects of after-school programs have been mixed and depend largely on program structure, type of program and quality of staff-child interactions (Cross et al., 2010; Riggs & Greenberg, 2004a). Children participating in unstructured after-school programs spend the majority of their time partaking in free-play and/or recreational activities that offer more opportunities to engage in harmful and risky behavior, these activities fail to enhance positive youth development, which may explain the variance in impacts of after-school programs (Mahoney & Stattin, 2000; Mahoney, Stattin & Lord, 2004).

After-school program staff can enhance positive youth development by interacting with youth in positive ways, using appropriate behavior management techniques and establishing a safe and healthy program climate (Loosli, 2000; Miller, 2003; Smith 2007). After-school programs can influence and play a very important role in the positive development of children but if the relationships and interactions between staff and children are not examined then any effort to improve the quality of after-school programs will fall short of intended results, because of the significant impact staff-child interactions have on youth outcomes.

Research evidence has indicated the importance of using child and staff perceptions to assess after-school program climate and quality of staff-child interactions (Rosenthal & Vandell, 1996; Hall & Dilworth, 2005). Direct observations by independent observers have also been found to assist researchers in examining change, as well as in identifying the strategies and tools necessary to strengthen after-school programs (Hudley, 2006; Rosenthal & Vandell, 1996; Irwin & Bushnell, 1980). Both children and staff perceptions have been found to be helpful in understanding the after-
school setting, but it has not been determined if one is a better indicator or more important than the other in understanding the after-school program setting.

**Research Goals**

In this current investigation, both child and staff perceptions of after-school staff-child interactions were compared to the direct observations by independent observers to determine who is more closely aligned with the perceptions of the independent observers. Specifically, this study identified whether children or program staff are better indicators of independent observations of staff-child interactions with in after-school programs. Child and staff perceptions were also compared to each other to determine if an association exists between their perceptions. Such information has direct implications for organizations that face time and funding constraints and organizations who may only be able to conduct one assessment. Knowing this information can be helpful to after-school program administrators in deciding which strategy to use for documenting program quality. This increases program accountability and strengthens after-school programs. The following research questions will be addressed:

1.) Is there a correlation between children’s perceptions and staff’s perceptions of staff-child interactions? If so, how strong is the correlation?

2.) Are program staff’s perceptions of staff-child interactions aligned with the independent observations of staff-child interactions in after-school programs?

3.) Are children’s perceptions of staff-child interactions aligned with the independent observations of staff-child interactions in after-school programs?
4.) Which is the better indicator of independent observations of after-school staff-child interactions in after-school programs?
Chapter 2

METHODS

The data from this study was collected from the LEGACY Together Project. The goal of the LEGACY Together Project is to promote citizenship, skills and positive youth behavior in after-schools program. With the development of these skills and behavior, the long-term goal of the project is to prevent drug use and delinquency. After-school program sites were randomly assigned to the treatment group to receive program support and coaching on the Good Behavior Game (GBG) or assigned as the comparison group and continued “business as usual.” The Good Behavior Game is an interdependent group-oriented behavior management system that focuses on positive reinforcement through team competition and peer influence and has been used with various participants and in various settings (Barrish, Saunders, & Wolf, 1969; Tingstrom, Sterling-Turner, & Wilczynski, 2006).

For this current investigation, twenty-three after-school programs offered through three different after-school programs located in Harrisburg, PA and Lancaster, PA participated in the study. Direct observations completed during the spring of 2010 by external observers and self-report surveys given to 178 children in 2nd-5th grade and 42 program staff were examined to assess the perceptions of staff and children in after-school programs.
Participants

Out of the 178 children completing the child survey, 48.6% (87) were male and 51.4% (92) were female, 9.5% (17) of the children were 7 years old, 28.5% (51) were 8 years old, 23.5% (42) were 9 years old, 21.2% (38) were 10 years old, and 16.8% (30) were 11 years old. Overall, 38% (68) were African American, 25.7% (46) were Caucasian, 11.7% (21) were Mexican/Hispanic/Latino, and 24.5% (44) children reported as Asian/Pacific Islander, Native American/American Indian or Other. Child grade level ranged from 2nd to 5th grade, 29.6% (53) were in 2nd grade, 26.8% (48) were in third grade, 20.1% (36) were in 4th grade, and 23.5% (42) were in 5th grade.

Of the 42 staff members surveyed in the spring of 2010, 83.3% (35) were female and 16.7% (7) were male. Overall, 35.7% (15) reported being over 45 years of age, 11.9% (5) were 36-45 years of age, 19% (8) were 26-35 years of age, 19% (8) were 22-25 years of age, and 11.9% (5) were 18-21 years of age. The majority of staff were White/Caucasian 66.7% (28), with 19% (8) reporting as Hispanic/Latino, and 14.3% (6) reporting African American. The educational background of the program staff varied considerably, with 71.4% (30) reporting some experience in college (some college, completed 2 year degree, or completed 4 year degree), 11.9% (5) reporting some experience in graduate school (some graduate work or masters degree or higher), and 14.3% (6) completed a high school or GED (see Table 1).

Community Descriptions

The 23 after-school program sites included in the study are located in central Pennsylvania and were recruited from the Harrisburg, Lancaster, and Dauphin County
areas (See Table 1 for a description of the after-school program community demographics). Dauphin County is a suburban community to Harrisburg that consists of approximately 83,000 residents and the majority of the population is White/Caucasian. The average household income ranges from $40,421- $53,144 and the percent of families living below the poverty line ranges from 6.9-2.4 %. Throughout the Dauphin County school district, 65.8% of the students identify as White/Caucasian, 22.3% identify as African American, and 6.8% identify as Hispanic/Latino. Out of the entire school district 23.8% of the student population are economically disadvantaged.

Harrisburg, Pa is an urban community and has a population of 48,950 residents. 34 percent of residents identify as White/Caucasian, 56 percent identify as African American, and 13 percent identify as Hispanic/Latino. The average household income is $31,521, with 65% of residents 16 and older in the labor force and 26% of families living below the poverty line. The Harrisburg school district is diverse, with 74% reporting as African American, 18% as Hispanic/Latino, and 5% as White/Caucasian. Of the entire student population, 64% are thought to be economically disadvantaged and district wide reading proficiency is 29% and math proficiency is 28%.

The city of Lancaster, PA has an approximate population of 56,348 residents, 66% of the population identifies as White/Caucasian, 15% as African American, and 33% as Hispanic/Latino. The average household income is $32,854, 63% of residents older than 16 years of age are in the work force and 24% of families fall below the poverty line. Within the entire school district, 58% of students are Hispanic, 22% are African American, and 18% are White, 69% of those students are considered economically
disadvantaged. District wide reading proficiency is 48 percent and math proficiency is 54 percent.

**Table 1**

Staff and Child Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Percentage of Children (n= 178)</th>
<th>Percentage of Staff (n= 42)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>48.6</td>
<td>16.7</td>
</tr>
<tr>
<td>Female</td>
<td>51.4</td>
<td>83.3</td>
</tr>
<tr>
<td><strong>Child Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 yr</td>
<td>9.5</td>
<td>----</td>
</tr>
<tr>
<td>8 yr</td>
<td>28.5</td>
<td>----</td>
</tr>
<tr>
<td>9 yr</td>
<td>23.5</td>
<td>----</td>
</tr>
<tr>
<td>10 yr</td>
<td>21.2</td>
<td>----</td>
</tr>
<tr>
<td>11 yr</td>
<td>16.8</td>
<td>----</td>
</tr>
<tr>
<td><strong>Staff Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45 yrs and older</td>
<td>----</td>
<td>35.7</td>
</tr>
<tr>
<td>36-45 yrs</td>
<td>----</td>
<td>11.9</td>
</tr>
<tr>
<td>26-35 yrs</td>
<td>----</td>
<td>19</td>
</tr>
<tr>
<td>22-25 yrs</td>
<td>----</td>
<td>19</td>
</tr>
<tr>
<td>18-21 yrs</td>
<td>----</td>
<td>11.9</td>
</tr>
<tr>
<td><strong>Self-identity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>38</td>
<td>14.3</td>
</tr>
<tr>
<td>Caucasian</td>
<td>25.7</td>
<td>66.7</td>
</tr>
<tr>
<td>Hispanic</td>
<td>11.7</td>
<td>19</td>
</tr>
<tr>
<td>Other</td>
<td>24.5</td>
<td>----</td>
</tr>
<tr>
<td><strong>Grade Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2\textsuperscript{nd} Grade</td>
<td>29.6</td>
<td>----</td>
</tr>
<tr>
<td>3\textsuperscript{rd} Grade</td>
<td>26.8</td>
<td>----</td>
</tr>
<tr>
<td>4\textsuperscript{th} Grade</td>
<td>20.1</td>
<td>----</td>
</tr>
<tr>
<td>5\textsuperscript{th} Grade</td>
<td>23.5</td>
<td>----</td>
</tr>
<tr>
<td><strong>Education Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School/GED</td>
<td>----</td>
<td>14.3</td>
</tr>
<tr>
<td>Some College</td>
<td>----</td>
<td>71.4</td>
</tr>
<tr>
<td>Some Graduate Work</td>
<td>----</td>
<td>11.9</td>
</tr>
</tbody>
</table>
After-school Program Descriptions

The 23 after-school program sites were offered through three separate after-school programs. The mission of the first program is to provide a safe, educational, and nurturing environment for all children enrolled in their child development, school age childcare program. The organizational structure of the program consists mostly of childcare. Activities include outside play, organized outdoor games, organized indoor games, and quiet time, such as homework or quiet table activities.

The mission of the second program is to create enriching opportunities for school students in a stimulating and nurturing environment by providing a supportive climate where a child’s physical, emotional, and intellectual needs can be met. The program is guided by the idea that adults play an influential role in child and youth outcomes and the program promotes academic success, social-emotional skills, and conflict resolution skills. The organizational structure of the program consists of structured activities focusing on reading comprehension, language arts, the PATHS program, cultural enrichment, community service, and health and exercise.

The mission of the third program is to promote the development of self-confidence and a positive self-image by helping children feel safe, respected and cared for by adults. Activities implemented during the program consist of recreational activities and quiet activities, such as homework time, enrichment time, and story time. Such activities are thought to increase a child’s independence, fair play, cooperation, and self-esteem.

The organizational structure of programs 1 and 3 consist mostly of childcare, which aims to provide a safe and supervised environment. Although these programs
provide protection from youth engagement in risky behaviors, activities are made up mostly of unstructured recreational activities, such as arts and crafts, homework assistance, free-play and socializing with peers (Riggs & Greenberg, 2004a). Unstructured after-school programs, such as those whose sole mission is to provide supervision, that offer more free and recreational activities may present more opportunities for youth to engage in unhealthy and harmful behavior (Haynie & Osgood, 2005; Mahoney & Stattin, 2000; Mahoney, Stattin & Lord, 2004).

The second program not only provides a safe and supervised environment for children and youth but also attempts to promote positive youth development through structured activities that seek to meet the physical, emotional, and intellectual needs of children and youth. After-school programs that have a sufficient daily routine and implement youth development programs have been found to increase social behavior, decrease problem behaviors and prevent drug use (Mahoney & Stattin, 2000; Tebes et al., 2007).
Table 2

After-School Programs Community Demographics

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Harrisburg, PA</th>
<th>Lancaster, PA</th>
<th>Dauphin County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of residents</td>
<td>48,950</td>
<td>56,348</td>
<td>83,000</td>
</tr>
<tr>
<td>Avg. income</td>
<td>31,521</td>
<td>32,854</td>
<td>40,421-53,144</td>
</tr>
<tr>
<td>% below poverty</td>
<td>26%</td>
<td>24%</td>
<td>7-3%</td>
</tr>
<tr>
<td>Student self-identity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>5%</td>
<td>18%</td>
<td>66%</td>
</tr>
<tr>
<td>African American</td>
<td>24%</td>
<td>22%</td>
<td>22%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>18%</td>
<td>58%</td>
<td>7%</td>
</tr>
<tr>
<td>Economically disadvantaged</td>
<td>64%</td>
<td>69%</td>
<td>24%</td>
</tr>
<tr>
<td>After-school programs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of sites</td>
<td>2</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Student participants</td>
<td>34</td>
<td>76</td>
<td>69</td>
</tr>
<tr>
<td>Staff participants</td>
<td>1</td>
<td>24</td>
<td>17</td>
</tr>
</tbody>
</table>

Measures

In this current investigation, staff and child surveys and observations completed by independent observers were conducted to assess the perceptions of staff and children of staff-child interactions with in after-school programs. Data was collected from all three reporters during the spring of 2010 (see Table 3). Both child and staff perceptions of after-school staff-child interactions were compared to the observations to determine who was more closely aligned with the perceptions of the independent observers. Child and staff perceptions were also compared to each other to determine if an association exists between their perceptions (see Figure 1). To measure staff-child interactions the items examined were taken from Afterschool Connectedness scale Perceptions of Staff subscale included in the student survey, the Arnett Caregiver Interactions scale included in the
staff survey, and the Promising Practice Rating Scale Supportive Relations with Adults subscale included in the observations.

**Table 3**

**Data Collection Dates of Each Reporter**

<table>
<thead>
<tr>
<th>Method</th>
<th>Dates Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Survey</td>
<td>April 2, 2010-May 6, 2010</td>
</tr>
<tr>
<td>Staff Survey</td>
<td>April 2, 2010-May 6, 2010</td>
</tr>
<tr>
<td>Observations</td>
<td>May 7, 2010-May 27, 2010</td>
</tr>
</tbody>
</table>

**Figure 1.** Data Analysis Overview

Figure 1. Depicts the pathways examined in the current investigation.
Child Survey

The School Connectedness scale was modified for after-school programs and is used in the child survey to obtain answers from students on how well they believe they get along with other children in the program, how much they enjoy the program, and how they feel they are treated by program staff. The original school connectedness scale was developed using data from Add Health, “a nationally representative sample of American adolescents in grades 7-12 in 1995” and intended to assess a student’s level of connectedness with his/her school (p. 291, McNeely, 2005). For this study, three questions measuring the children’s perceptions of staff were taken from the After-School Connectedness scale (ASC) to assess staff-child interactions in after-school programs (see Table 4). Although, there are five additional questions included in the ASC scale, the three items included in the investigation were selected because the items address staff-child interactions specifically. The five items excluded from the investigation measure the child’s interactions with other children in the program and their overall feelings of the program.

Although, there is information available on most items in the original school connectedness scale, there has been difficulty identifying the source of the three items assessing staff-child interactions. While investigating the school connectedness scale, McNeely (2005) could not identify the source of these three items and questions whether these items were developed to measure a single construct. The responses to these questions range from 1 to 3, with 3 indicating more positive feelings and 1 indicating more negative feelings. The scale’s internal consistency is $\alpha = .624$. The low internal consistency could be due to the items addressing multiple aspects and levels of the staff-
child interaction. For example, two of the items examine the child’s personal relationship with the caregiver and the last item examines the caregiver’s level of fairness to all children in the program (McNelly, 2005).

Table 4

Child Survey Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Value Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>The staff in my afterschool program treat children fairly</td>
<td>1= Not True</td>
</tr>
<tr>
<td></td>
<td>2= Sometimes True</td>
</tr>
<tr>
<td></td>
<td>3= Very True</td>
</tr>
<tr>
<td>I have trouble getting along with staff in my afterschool program</td>
<td>Same as above</td>
</tr>
<tr>
<td>I feel that my afterschool program staff cares about me</td>
<td>Same as above</td>
</tr>
</tbody>
</table>

Note. These items were taken from the Afterschool Connectedness Scale to measure staff-child interactions with in after-school programs.

Staff Survey

The Arnett Caregiver Interaction scale (Arnett, 1989) was developed to evaluate the quality of caregiver interaction with children. The Arnett is used in the staff survey to measure the quality and content of staff’s interactions with children in the program, such as the emotional tone, discipline style, and responsiveness of the caregiver. The staff provide an average rating of their interactions with children on four sub-scales: positive interaction (i.e., warm, enthusiastic, and developmentally appropriate behavior), sensitivity (i.e., hostility, harshness, and use of threat), detachment (i.e., un-involvement and disinterest), and permissiveness (i.e. not addressing misbehaviors). For this study, eight items were taken from the Arnett Caregiver Interaction Sensitivity subscale to
assess staff perceptions of staff-child interactions (See Table 5). The response to these questions ranged from 1-4 and this scale produced a good internal consistency of $\alpha = .812$.

**Table 5**

**Staff Survey Items**

<table>
<thead>
<tr>
<th>Item</th>
<th>Value Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speak warmly to the children</td>
<td>1= Never</td>
</tr>
<tr>
<td></td>
<td>2= Occasionally throughout the day</td>
</tr>
<tr>
<td></td>
<td>3= Usually throughout the day</td>
</tr>
<tr>
<td></td>
<td>4= Consistently throughout the day</td>
</tr>
<tr>
<td>Listen attentively when children speak</td>
<td>Same as above</td>
</tr>
<tr>
<td>Enjoy children</td>
<td>Same as above</td>
</tr>
<tr>
<td>Shows interest in children by asking what they are doing</td>
<td>Same as above</td>
</tr>
<tr>
<td>Comment on the strengths of the child</td>
<td>Same as above</td>
</tr>
<tr>
<td>Use a child’s name when you speak to him/her</td>
<td>Same as above</td>
</tr>
<tr>
<td>Seem sincere in your tone of voice and manner</td>
<td>Same as above</td>
</tr>
<tr>
<td>Kneel, bend, or sit at the level of children for better eye contact</td>
<td>Same as above</td>
</tr>
</tbody>
</table>

Note. These items were taken from the Arnett Caregiver Interaction Scale to measure staff-child interactions with in after-school programs.

**Independent Observations**

Observations for the Legacy Together project were conducted during three different waves, wave 1 was conducted in the fall of 2009, wave 2 was conducted in the
winter of 2009, and wave 3 was conducted in the spring of 2010. During wave 1 and wave 3, two rounds of observations were completed for each site. Only one round of observations were completed for each site during wave 2 of data collection. During a typical observation session, the observers were asked to rate the after-school program site using four assessments over a two-hour time period. These assessments include, the Afterschool Climate Assessment, Promising Practices Rating Scale (Wisconsin Center for Education Research & Policies Studies Associates), Arnett Caregiver Interaction Scale (Arnett, 1989), and the Youth Program Quality Assessment (Smith, 2005). The observational data collectors followed scoring directions and parameters around observations, such as the start and stop time of each assessment during observations.

A post-doctorate and a master’s student served as the standard coders for this study. In order to be certified as standard coders, they were required to be within one point of each other on at least 85 percent of items on all rating scales. After completing the standard coder process, the standard coders were responsible for conducting the observer trainings and supervising interrater agreement of in-field observations. In order to be considered reliable and certified for in-field observations, the observational data collectors were required to be within one point agreement of the standard coder scores on 80 percent of the items.

The Legacy Together project used several techniques to train their observers, as well as to maintain reliability and validity throughout the observational time period. Observational data collectors attended an initial 2-day training to get to know the instruments/assessments and to familiarize themselves with the behaviors and practices to look for during observations. Observers also got accustomed to the assessments by
participating in “test-evaluations,” where observers practiced scoring each assessment using short video clips of after-school programs. Discussions were also held on the items where inconsistency or disagreement occurred. Booster trainings were held before each wave of data collection to review individual items, discuss the guidelines for assigning ratings, and remind data collectors of system procedures. Observers also watched video clips that were coded by the standard coders to prevent drifting away from measurement guidelines.

External Observers used the Promising Practices Rating Scale (PPRS) to measure children’s relationships/interactions with each other, staff’s relationships/interactions with the children, child engagement, program structure, and staff control techniques. The PPRS was developed by the Wisconsin Center for Education Research & Policies Studies to examine the association between participating in high quality after-school programs and child and youth outcomes (Yohalem & Wilson-Ahlstrom, 2009). The six subscales included in the PPRS are Supportive Relations with Adults (SRA), Supportive Relations with Peers (SRP), Level of Engagement (LE), Appropriate Structure (AS), and Chaos (C). All items are rated on a 4-point likert scale, with 1 indicating few instances of optimal behavior observed from staff and 4 indicating many instance of optimal behavior observed from staff. For the PPRS assessment, observational data collectors were instructed to observe three 15-minute program activities for each observational period. For this study, three items were taken from the Supportive Relations with Adults (SRA) subscale to assess the quality of staff-child interactions in the program (see Table 6). These three items produced good internal consistency $\alpha=.795$. 
It must be noted that one of the four assessments included in the Legacy Together observational packet is the Arnett Caregiver Interaction Scale that measures the quality of the caregiver’s interaction with the children in the program. There are similar items included in both the observational Arnett and staff survey Arnett; however, the Arnett Caregiver Interaction observational Scale was not employed in this investigation because it focused on specific staff and not on a setting measure of staff-child interactions. Thus, observational data collectors rated each staff member on an individual level.

Where as the PPRS Supportive Relations with Adults observational subscale measures staff-child interactions on a settings level and not on an individual level. Thus, observational staff members give an average rating for all staff members. This overall rating of staff aligns with how the children rate the staff members in the child survey. In the ASC Perceptions of Staff subscale, children are asked to give an average rating of how staff interact with children in the program. The items taken from the Arnett Caregiver Interaction Scale in the staff survey, do ask staff to rate themselves, however they are also rating the staff in general. The observational Arnett can also be a settings measure by averaging the individual ratings of staff members, however the objective of the current investigation was to measure staff-child interactions on a general settings level and the PPRS aligned more with closely with that objective.
Table 6

Observational Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Value Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff positive affect with students</td>
<td>1= Highly Uncharacteristic</td>
</tr>
<tr>
<td></td>
<td>2= Somewhat Uncharacteristic</td>
</tr>
<tr>
<td></td>
<td>3= Somewhat Characteristic</td>
</tr>
<tr>
<td></td>
<td>4= Highly Characteristic</td>
</tr>
<tr>
<td>Positive personal interactions with students</td>
<td>Same as above</td>
</tr>
<tr>
<td>Positive engagement with student/activities</td>
<td>Same as above</td>
</tr>
</tbody>
</table>

Note. These items were taken from the Supportive Relations with Adults (SRA) section of the Promises Practices Rating Scale to measure staff-child interactions with in after-school programs.

Analysis Overview

To investigate whether children or staff were more aligned with independent observations of staff-child interactions in after-school programs, Pearsons correlations were employed. First, raw mean scores were calculated for each after-school program site. Individual items were grouped together creating an overall mean score for the staff Arnett items, child ASC items and observational PPRS items. Each site had an overall staff Arnett, child ASC, and observation PPRS mean score (see Table 7). For example, all of the individual items in the staff survey were computed together to create an overall staff Arnett mean score per site and all the items in the child survey were computed together to create an overall child ASC mean score per site.

The raw staff Arnett overall mean scores and the child ASC overall mean scores were then merged into the dataset with the observation PPRS overall mean scores. Thus,
the twenty-three staff Arnett overall mean scores and twenty-three child ASC overall mean scores were hand entered into the dataset where the twenty-three observation PPRS overall mean scores were calculated. The raw mean scores were then standardized and converted into z-scores because the staff items, child items and observational items varied in response scales. Both the staff survey and observational measures were based on a 4-point Likert scale and the child survey was based on a 3-point scale.

Pearson’s correlations were conducted between: (1) the staff Arnett overall mean score and the observation PPRS overall mean score; (2) child ASC overall mean score and the observation PPRS overall mean score; (3) and the staff Arnett overall mean score and the child ASC overall mean score. Treatment and “business as usual” sites were controlled to determine if differences exist between the perceptions of staff and students of staff-child interactions in after-school programs based on the intervention. Treatment and “business as usual” sites were also separated into two groups, to conduct correlations between the staff, child and observation overall mean scores for both groups. This was done to determine if participating in a treatment site had any effect on the significance of the association between the perceptions of staff and/or children with the perceptions of the independent observers on staff-child interactions in afterschool programs.

This was examined because the staff in the treatment sites could have become more sensitized to the concept because they received training, weekly coaching and support on implementation of the Good Behavior Game, which aims to reduce disruptive behavior through positive reinforcement, such as peer influence and team competition (Barrish et al., 1969; Tingstrom et al., 2006). The staff and children in the treatment sites may have more positive interactions because GBG aims to create a positive after-school
climate by creating group cohesiveness and cooperation, as well as by increasing social
skills (Barrish et al., 1969; Tingstrom et al., 2006). Therefore, GBG may impact the
perception of staff, children and observational data collectors of staff-child interactions in
after-school programs.

To decrease for measurement error in terms of data entry and analyses, an
independent data analysis acted as an independent reviewer with the merging of data,
checked all raw data and data entry, and reran all analyses. Moreover, the analyses were
were rerun and merged a total of three times to guard against data entry and measurement
error.
Table 7
Mean Scores by After-school Program Site

<table>
<thead>
<tr>
<th>Site Number</th>
<th>Observation</th>
<th>Staff</th>
<th>Child</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Z-score</td>
<td>M</td>
<td>n</td>
</tr>
<tr>
<td>1</td>
<td>-.50</td>
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<td>---</td>
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<tr>
<td>9</td>
<td>1.7</td>
<td>3.9</td>
<td>---</td>
</tr>
<tr>
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<td>.80</td>
<td>3.5</td>
<td>---</td>
</tr>
<tr>
<td>11</td>
<td>-.06</td>
<td>3.0</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>1.0</td>
<td>3.6</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>-.71</td>
<td>2.7</td>
<td>3</td>
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<td>-.50</td>
<td>2.8</td>
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</tr>
<tr>
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<td>3.3</td>
<td>2</td>
</tr>
<tr>
<td>23</td>
<td>-.50</td>
<td>2.8</td>
<td>---</td>
</tr>
</tbody>
</table>
Chapter 3

RESULTS

Results of this investigation will be explained in order of the four research questions examined here. The data analysis is described for each research question and is followed by the results found. The analyses included Pearson’s correlations between child and staff perceptions, staff perceptions and independent observations, and child perceptions and independent observations of staff-child interactions with in after-school programs. The analysis also controlled for treatment vs. “business as usual” after-school program sites. Treatment and “business as usual” sites were also separated into two groups. This was controlled because the staff and children in the treatment sites received training, weekly coaching and support on the Good Behavior Game (GBG). GBG aims to create group cohesiveness and cooperation, by decreasing disruptive behavior and increasing social skills, this could impact the perceptions of staff because it is likely that staff in the treatment sites are more aware of the importance of staff-child interactions than the staff in the “business as usual” sites.

Is there a correlation between children’s perceptions and staff’s perceptions of staff-child interactions? If so, how strong is the correlation?

The items in the staff survey were grouped together to create an overall staff Arnett mean score and the individual items in the child survey were grouped together to create an overall child ASC mean score. Next, staff and child mean scores were calculated for all 23 after-school program sites. The raw staff Arnett overall mean scores
and the child ASC overall mean scores were then merged into the dataset with the observation PPRS overall mean scores. Due to the variance in response scales, staff and child mean scores were standardized and converted into z-scores. Then, Pearson’s correlations were conducted between the staff Arnett overall mean score and the child ASC overall mean score to identify if a significant correlation exists between staff and child perceptions of staff-child interactions. After Pearson’s correlations were conducted, treatment vs. “business as usual” sites was controlled for to determine if differences exist between the two groups. Treatment and “business as usual” sites were also separated into two groups, so correlations to be ran between the staff and child overall mean scores for both groups.

A moderate correlation between staff and child perceptions was found (r = -.527, p < .020). Thus, staff Arnett overall mean score was found to be opposite that of children’s ASC overall mean score. Figure 2 displays the pathways of staff and child ratings of staff-child interactions and shows that staff and children are rating staff-child interactions in opposite directions of one another. Even after controlling for effect of treatment vs. “business as usual” sites, the correlation between staff Arnett and child ASC items was still moderately negatively correlated (r= -.557, p < .016). A significant correlation was not found between the staff Arnett overall mean score and the child ASC overall mean score for the “business as usual” sites (r= -.531, p > .05) or for the treatment sites (r= -.603, p >.05).
Figure 2. Child and Staff Mean Scores

Are program staff’s perceptions of staff-child interactions aligned with the independent observations of staff-child interactions in after-school programs?

The three individual observational items taken from the PPRS were grouped together to create an overall observational PPRS mean score and the eight individual staff items taken from the Arnett Caregiver scale were also grouped together to create an
overall staff Arnett mean score. Observational and staff mean scores were then calculated for all 23 after-school program sites included in the study. The raw staff Arnett overall mean scores and the child ASC overall mean scores were then merged into the dataset with the observation PPRS overall mean scores. Observational and staff mean scores were standardized and converted into z-scores because of the variance in response scales. Pearson’s correlations were then conducted between the observational PPRS overall mean score and the staff Arnett overall mean score to assess whether staff perceptions of staff-child interactions were aligned with the independent observations of staff-child interactions with in after-school programs. After Pearson’s correlations were conducted, treatment vs. “business as usual” sites was controlled for to determine if differences exist between the two groups. Treatment and “business as usual” sites were also separated into two groups, so correlations to be ran between the staff and observation overall mean scores for both groups.

A moderate negative correlation was found between the staff Arnett overall mean score and the observation PPRS overall mean score (r = -.562, p < .012). Thus, staff Arnett overall mean score was in the opposite direction than the observation PPRS overall mean score. Figure 3 displays the pathways of staff and observational ratings of staff-child interactions and shows that staff and observers are rating staff-child interactions in opposite directions of one another. Moreover, the correlation between the independent observers and staff perceptions was still moderately and negatively correlated (r= -.537, p < .022) after controlling for the effect of treatment vs. “business as usual” sites. A significant correlation was not found between the staff Arnett overall mean score and the observation PPRS overall mean score for the “business as usual” sites.
(r = -.240, p > .05), however a high negative correlation was found for the treatment sites (r = -.880, p > .01).

**Figure 3.** Staff and Observational Mean Scores

Are children’s perceptions of staff-child interactions aligned with the independent observations of staff-child interactions in after-school programs?

The three individual observational items taken from the PPRS were grouped together to create an overall observational PPRS mean score and the three individual student items taken from the Afterschool Connectedness scale were also grouped together
to create an overall child ASC mean score. Observational and child mean scores were then calculated for all 23 after-school program sites included in the study. The raw staff Arnett overall mean scores and the raw child ASC overall mean scores were then merged into the dataset with the observation PPRS overall mean scores. Observational and child mean scores were standardized and converted into z-scores because of the variance in response scales. Pearson’s correlations were then conducted between the observational PPRS overall mean score and the child ASC overall mean score to assess whether child perceptions of staff-child interactions were aligned with the independent observations of staff-child interactions within after-school programs. After Pearson’s correlations were conducted, treatment vs. “business as usual” sites was controlled for to determine if differences exist between the two groups. Treatment and “business as usual” sites were also separated into two groups, so correlations to be ran between the child and observation overall mean scores for both groups.

No relationship was found between the child ASC overall mean score and the observation PPRS overall mean score ($r = .237$, $p > .05$). Figure 4 displays the pathways of child ASC and observer PPRS overall mean scores and shows that although a low correlation was found, staff and children are rating staff-child interactions in a similar direction. Thus, child perceptions were not associated with independent observation of staff-child interactions. However, after controlling for the effects of treatment vs. “business as usual” after-school program sites, a low significant correlation was found ($r = .463$, $p < .05$) between the child ASC overall mean score and the observation PPRS overall mean score. A significant correlation was not found between the child ASC
overall mean score and the observation PPRS overall mean score for the “business as usual” sites ($r = .442, p > .05$) or for the treatment sites ($r = .095, p > .05$).

**Figure 4. Child and Observational Mean Scores**

Which is the better indicator of independent observations of after-school staff-child interactions in after-school programs?

A moderate correlation was found between the perceptions of staff and the independent observers ($r = -.562, p < .01$), however the correlation between the staff
Arnett overall mean score and the observation PPRS overall means score was negative even after controlling for treatment vs. “business as usual” sites ($r = -0.537, p < .05$).

Although, there was not a significant correlation found between the perceptions of children and the independent observers, the correlation was positive between these two groups ($r = .237, p > .05$). These results indicate that the children and the independent observers rated staff-child interactions with in after-school programs in the same direction. Also, after controlling for the effects of treatment vs. “business as usual”, a low significant correlation was found between the perceptions of children and the independent observers ($r = .463, p < .05$). Therefore, in this current investigation children are the better indicator of independent observations of staff-child interactions in after-school programs (see Figures 5 and 6).
Figure 5. Correlations of Child-Staff interactions

Observations (PPRS) of Staff-Child Interactions
Spring 2010

Child (ASC) Perceptions of Staff-Child Interactions
Spring 2010

Staff (Arnett) Perceptions of Staff-Child Interactions
Spring 2010

.237
(p = .27)

-.527*
(p = .05)

-.562*
(p = .01)

Figure 5. Correlations between the perceptions of independent observers, children, and staff of staff-child interactions within after-school programs.
Figure 6. Correlations after controlling for treatment vs. “business as usual” sites

Figure 6. Correlations between the perceptions of independent observers, children, and staff of staff-child interactions with in after-school programs after controlling for the effects of treatment vs. “business as usual” after-school program sites.
Chapter 4

DISCUSSION

This study examined the perceptions of children and staff in after-school programs. In particular, this study examined whether children or staff perceptions were more aligned with the independent observations of staff-child interactions with in after-school programs. Correlations between child and staff perceptions of staff-child interactions were also examined to determine if an association exists between the perceptions of children and staff with in after-school programs. These four research questions were addressed during this investigation:

1.) Is there a correlation between child’s perceptions and staff’s perceptions of staff-child interactions? If so, how strong is the correlation?

2.) Are program staff’s perceptions of staff-child interactions aligned with the independent observations of staff-child interactions in after-school programs?

3.) Are children’s perceptions of staff-child interactions aligned with the independent observations of staff-child interactions in after-school programs?

4.) Which is the better indicator of independent observations of after-school staff-child interactions in after-school programs?

A relationship was found between children and staff perceptions of staff-child interactions with in after-school programs. Although a moderate relationship was found, staff and child perceptions were negatively related to one another. Thus children and staff rated their interactions with one another in opposite directions. For example, when staff members rated their interactions with children as positive and highly characteristic,
children rated positive interactions with staff as uncharacteristic. Therefore, staff and children do not have similar perceptions of their interactions with one another.

**Staff Perceptions**

A moderate relationship was also found between staff perceptions of staff-child interactions and the independent observations. The relationship between staff ratings and independent observations was negative, thus staff and independent observers were rating the interactions between children and staff in opposite directions. Therefore, when independent observers rated positive interactions between staff and children as uncharacteristic of the program, staff members rated themselves as using positive affect with children consistently throughout the day. Although these results appear to counter-intuitive, they are not that surprising. When comparing with findings from studies examining the teacher perceptions with independent observations and student perceptions (Howes & Ritchie, 1999; NICHD Early Child Care Research Network, 2003), we see mixed results. Results from these studies are varied, some studies have found no association between the perception of teachers with independent observers and the perceptions of students (Howes & Ritchie, 1999; NICHD Early Child Care Research Network, 2003) and some have found positive associations between the perceptions of teachers with independent observers and the perceptions of students (Douman et al., 2008; Howes et al., 1998; Rey et al., 2007). However, none have noted a negative correlation.

Even though, this provides some support and evidence for the reliability of adult reporters, this current investigation is not examining the association between the
perceptions of teachers, independent observers and the perceptions of students. Since this investigation was one of the first to examine after-school staff perceptions, further studies need to examine staff perceptions of staff-child interactions to determine if staff are aligned with independent observations of staff-child interactions with in after-school programs. This information will assist organizations and practitioners in selecting evaluation tools for after-school programs.

Some explanations for the results found in the current investigation may be that because staff are reporting on their own behavior they may be more likely to report their interactions with children as more positive or more negative. When assessing the quality of staff-child interactions, staff are reporting and evaluating their individual behavior with children and may be less inclined to report truthfully. As mentioned by Johns and Robins (1995), self-evaluations consist of both bias and valid elements that depend largely on individual differences. For example, some individuals may be more likely to report themselves as being more positive even if others are more likely to perceive them as more negative. This may cause problems while using staff self-report measures because it may prevent program staff from reporting with accuracy.

Staff turnover rates can also affect the findings from staff self-report measures. Limited funds and budgets force many after-school programs to pay their staff low wages and low wages increase the likelihood of high staff turnover (Riggs & Greenberg, 2004a; Halpern, 1992). If high staff turnover rates are present with in an after-school program, the staff perception of the after-school setting may be inaccurate because their perceptions are based on limited interactions with the children.
Also, observational data collectors are trained by members of the research team on how to interpret the constructs, as well as on the behavior and practices to look for during observations (Stuhlman et al., 2009). Observations are also more likely to be unbiased because training for observational data collectors includes methods and tools for removing individual interpretation of the instrument constructs and behaviors observed. Therefore, it could be that because staff are not trained on the definitions of the constructs or on the staff practices that are most effective with children, they are evaluating their behavior as more positive than observational data collectors. Although, the staff in the treatment sites may be rating themselves as more positive because they are receiving weekly support and coaching on GBG, which could cause staff to perceive their interactions with children as more positive. However, unlike staff and child self-report, observational ratings are not based on observing daily interactions between the staff and children but are based on much fewer instances.

Child Perceptions

Although a significant relationship was not found between child perceptions and independent observations of staff-child interactions, the correlation was positive between the children and the independent observers. These results suggest that children and independent observers are rating the interactions between staff and children with in after-school programs in the same direction.

After controlling for treatment and control after-school program sites, there was a significant low positive correlation found between the child perceptions and independent observations of staff-child interactions. Staff members participating in the after-school
treatment sites received training and weekly coaching on the Good Behavior Game, teaching staff members positive behavior management techniques and positive ways to interact with children. It may be that program staff in the treatment sites are more likely to interact with children more positively than the staff in the “business as usual sites” who received no formal training or weekly coaching on the Good Behavior Game. Therefore, because the correlation between the children and independent observers is positive, children were better indicators of independent observations of staff-child interactions within after-school programs. Although, there was a significant association found between staff and the independent observers, the negative correlation found between the staff and independent observers, indicates that program staff were not the better indicator of staff-child interactions.

These results provide evidence for children being the better indicator of staff-child interaction in after-school programs. The results found in this current investigation are similar to results found in previous studies examining the accuracy of child perceptions of staff-child interactions in after-school programs. Several studies have found associations between child self-report, observations and variables examined (Hall & Dilworth, 2005; Rosenthal & Vandell, 1996), research has also found associations between child perceptions and perceptions of their teachers and parents (Mellor, 2004). Unlike staff reports, child self-report measures examining staff-child interactions usually do not require children to report or evaluate on their own behaviors, which may encourage children to report with more candor and truthfulness.
Limitations of the Study

Even though this study provided a unique opportunity to investigate the alignment of children and staff perceptions with independent observations of staff-child interactions in after-school programs, there were several limitations. Although the items used in the child survey, staff survey and observations all measured aspects of staff-child interactions in after-school programs, none of the questions were identical to one another. The items in the child survey measured how program staff treated children in the program (e.g., the staff in my after-school program cares about me and I have trouble getting along with the staff in my after-school program), the items in the staff survey measured the emotional tone, discipline style, and responsiveness of the caregiver (e.g., speaks warmly to the children, shows interest in the child, and comments on the individual strengths of the child), and the items in the observations measure staff interactions with children (e.g., positive affect with students, positive interactions with students, and positive engagement with students). Due to the differences in items, the construct measured in this study (staff-child interactions in after-school programs) may have been interpreted and rated differently by each reporter (e.g., staff, children, and observers).

Also, although the items in the child survey are a part of the after-school connectedness scale, there has been difficulty identifying the source of these three items and whether the items were developed to measure a single construct. These items produce a moderate internal consistency ($\alpha = .624$), which could be due to the items addressing multiple aspects and levels of the staff-child interactions. Two of the items examine the child’s personal relationship with the caregiver and one item examines the caregiver’s level of fairness to all children in the program (McNelly, 2005).
Another limitation of the study is the difference in sample sizes between participating staff and the children. The sample size of the staff was significantly lower (n=42) than the sample size of the children (n=178) used in the study. Each site had a significantly higher number of child reporters than staff reporters, had the number of staff reporters been higher it may have provided a more complete evaluation of staff-child interactions in after-school programs. The data collection dates for each reporter also varied which may have affected the interpretation of staff-child interactions at each site. Both the spring child and staff surveys were collected from April 2, 2010-May 6, 2010, however the spring observations were conducted from May 7, 2010-May 27, 2010. Since high staff turnover is a common barrier faced by after-school programs, the variance in data collection dates may have caused incongruence in the data. The staff and children may have been rating different staff members than the observational data collectors. Had the collection dates been similar for all reporters, it may have provided a more accurate picture of the staff-child interactions in after-school programs because it is more likely that all reporters were rating the same staff members and similar interactions between those staff members and participating children.

Directions for Future Research

This investigation provides direction for future research examining the accuracy of staff and child perceptions of staff-child interactions with in after-school programs. Although the measures included in this investigation measured a similar construct, none of the items were identical to one another. Future investigations should incorporate measures that include the same or similar items for all reporters. Using the same items
for multiple reporters allows investigators to conduct a more accurate assessment of who is the better indicator of staff-child interactions with in after-school programs because it is more likely that the reporters are interpreting the construct as intended by the researcher.

Assessing the perceptions of staff and children at multiple time points would also allow researchers to determine if staff or children are aligned with and predict independent observations at different time points. This investigation assessed staff-child interactions at one time point (Spring 2010), assessing the staff and child perceptions at multiple time points would have provided further knowledge and/or evidence for who is the better indicator of independent observations of staff-child interactions with in after-school programs.

There is a clear need for further research focusing on the accuracy of program staff self-report with in after-school programs. Besides this investigation, there has been no previous empirical work examining the perceptions of staff self. Further research would provide more evidence on whether or not staff can assess the quality of the after-school program setting. Moreover, future research should also focus on measuring staff practices while interacting with children in after-school programs. This knowledge will assist practitioners in understanding the staff practices that promote positive relationships and deliver quality experiences for children in after-school programs.

Even though this investigation and previous studies have examined the perceptions of children (Hall & Dilworth, 2005; Rosenthal & Vandell, 1996), further research examining the perceptions of children would offer more evidence for whether or not child perceptions are related to independent observations of staff-child interactions.
with in after-school programs. Although this investigation was able to measure staff perceptions, the staff sample size was relatively low compared to the student sample size. Further investigations examining the perceptions of staff and children of staff-child interactions with in after-school programs should include a larger staff sample size. Also, all participants included in the sample resided in Pennsylvania, including participants from diverse locations will provide further evidence for the relation between staff and child perceptions with independent observations of staff-child interactions across different after-school settings.

**Implications**

Using multiple methods not only provides more methodological rigor but also explains inconsistency within the data (Hudley, 2006; Olson, 1977). However, many organizations and practitioners are faced with time and funding constraints and often times can only select one measurement tool, if any at all. Therefore, in order to create program accountability with in after-school programs, organizations and practitioners must be careful in selecting a measure by utilizing the most accurate and cost effective tool. Employing surveys to assess staff-child interactions tend to be the best option for organizations because they are affordable, easy to conduct and less time consuming.

This current investigation examined staff and child perceptions of staff-child interactions and found child perceptions as the better indicator of staff-child interactions. Such information can assist practitioners in choosing the most appropriate evaluation tool while measuring the after-school program setting. Child perceptions have been found to be reliable in depicting the interactions between staff and children (Hall & Dilworth,
and have been helpful in understanding the after-school program setting, as well as in identifying areas for program improvement. The purpose and objective of most after-school programs is to promote positive youth development. If we ignore or dismiss the perceptions and feedback from children participating in these programs then we risk the chance of not identifying the strategies necessary to engage children and ultimately make positive impacts on child behavior and outcomes.

However, the perceptions of staff can also provide very important insights into the after-school program setting. The impacts and effects of after-school programs rely heavily on the staff that interact with children and implement prevention programs. Using staff reports to assess staff-child interactions can assist practitioners and researchers in understanding the interactions between staff and children. Even though, there are no current studies supporting the reliability of staff self-report, dismissing the perceptions of staff in after-school programs may prevent organizations and practitioners from learning about the practices that staff employ in after-school programs, especially the practices employed while interacting with children. The knowledge gained from staff self-report measures can strengthen after-school programs by promoting positive staff practices, such as offering emotional support, providing structured interactions with children, ideas and materials, and engaging youth in cognitive processes.

Staff and child perceptions of staff-child interactions each offer a differential view of staff-child interactions. This may have implications for the type of evaluation practitioners and organizations choose to conduct. For example, examining the staff perspective may be more beneficial if practitioners are looking to learn about the staff
practices that staff employ while interacting with children. Also, examining the child perspective may be beneficial if practitioners are evaluating the effects of staff interactions with children on child behavior. Therefore, both the staff and child perspective of staff-child interactions provide practitioners with important insights into the after-school program setting and can assist in strengthening the after-school programs.
References


