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USING PUPPETS: AN INVESTIGATION OF CHILDREN'S SELF-REPORTS
OF THEIR TEMPERAMENT

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CHAPTER I

RESEARCH OBJECTIVE

Introduction

I am a rock star walking into the classroom—well, not *me* really. Fredrico, Coretta, Hilary, and Gregory are the rock stars. They are the ones the children enthusiastically ask about as class begins. They are so popular that every time they make an appearance in the classroom, they create a mob of children rushing out of their seats while their teachers try to control the class. Who can get children this excited, this engaged? Who can create such a scene in the classroom? Who *are* they? They are puppets.

For the past 4 years, I have been a facilitator of an educational theatre puppet program called *INSIGHTS into Children's Temperament*. I have worked in 24 classrooms involving approximately 600 children. Having an opportunity to experience the magic of puppets through the eyes of children has been a pleasure, a privilege, and a profound learning experience for me. Through puppets, I have received valuable insight into the children's world. I am able, if only for a few hours, to experience children enraptured in the puppets' every word and movement. Each time I exit the classroom, puppets in tow, I leave with a smile on my face. I leave inspired, wanting to do more, to understand more, and to contribute more—that is the motivation behind my research.

Puppets have captured the imagination of their audience for centuries, in both entertainment and educational settings (Batchelder, 1947; Batchelder & Comer, 1956; Blumenthal, 2005; Currell, 1985; Hunt & Renfro, 1982; Wall, White, & Philpott, 1965). They have conveyed important messages and elicited the perceptions of audience members in a nonthreatening manner. Puppets have been used in educational theatre along with creative drama, dramatic play, applied theatre, and process drama. Despite the popularity of puppets, few studies have empirically measured puppetry as a mechanism for collecting data on children's self-perception. Fewer still have evaluated the collection of children's self-perceptions after they have participated in an education theatre program that uses puppets. In this study, I had an opportunity to empirically evaluate the use of puppets and measure their validity in eliciting children's self-perceptions of their temperament.

Purpose

The purpose of this study was to examine the validity of children's self-reports of their temperament after participating in an educational theatre puppet program called *INSIGHTS into Children's Temperament*. The puppets used in this study were designed to represent the four typical temperaments identified by McClowry (2002). Each of the puppets differed on four dimensions of temperament: negative reactivity, task persistence, withdrawal, and activity. Gregory the Grumpy was characterized as High Maintenance; he was high in

negative reactivity (got upset easily), low in task persistence (moved easily from one task to another), and was high in activity (had a difficult time sitting still). Hilary the Hard Worker as Industrious was a mirror-image of Gregory—low in negative reactivity, high in task persistence, and low in activity. Fredrico the Friendly as Social/Eager to Try was identified as low in negative reactivity and low in withdrawal. Coretta the Cautious as Slow to Warm Up was high in negative reactivity and high in withdrawal. A more detailed description of the development of the four temperament profiles and the puppets that represented them is found in the Review of the Literature Chapter.

The data for this study came from three prevention trials that tested the efficacy of a comprehensive intervention program called *INSIGHTS into Children's Temperament* (hereafter, *INSIGHTS*). The 284 children in this study were interviewed following the 10-week educational theatre puppet program that is the classroom component of the *INSIGHTS* program. At the end of the program, the children were asked, “If you could pick one puppet—and only one puppet—who you are most like? Why do you think that you are like [name of selected puppet]?” These interviews, conducted by a team of trained researchers, including myself, were not previously examined as part of the larger *INSIGHTS* efficacy studies. The methodology employed in the present study included both qualitative and quantitative methods to analyze the children's responses.

This study also explored the validity of young children's perceptions of their temperaments by examining the level of agreement between their

identification with the puppets and their teachers' and parents' perceptions of their temperaments as derived from Likert-type parallel questionnaires called the *Teacher School-Age Temperament Inventory* (TSATI; McClowry & Lyons-Thomas, 2009) and the *School-Age Temperament Inventory* (SATI; McClowry, 1995).

The following research questions were examined:

1. How do children identify their temperament following a 10-week educational theatre program using puppets that represent four common temperament profiles?
2. What is the level of agreement between children's self-reported temperament and reports provided by their parents and teachers?

Although educational theatre is implemented in a variety of settings, few empirical studies have examined its impact. The results from this study are anticipated to make several contributions to the educational theatre and temperament fields by: demonstrating how educational theatre can enable children to better understand themselves; informing adults on how young children perceive themselves; and providing pilot data that could lead to the development of a reliable and valid tool for children to self-report on their perceptions of their temperament.

History of the *INSIGHTS* Program

The present study was a secondary analysis of data collected from three prevention trials that tested the efficacy of an intervention called *INSIGHTS*. *INSIGHTS* is a comprehensive, temperament-based intervention for primary-school-age children, their parents, and teachers. With over \$8 million in funding from the National Institute of Health's National Institute of Nursing Research and the US Department of Education's Institute of Education Sciences, *INSIGHTS* has been implemented in approximately 117 classrooms from 1994 to 2009 and has involved over 3,000 children.

This study focuses on the children's program. During the 10 weekly classroom sessions, puppets were used to teach the children about their own temperament and the temperament of others. The puppets and the children together role-played how daily dilemmas could be resolved. For example, one of the situations involved a child being disappointed for not being chosen as a line leader; another centered on students' rowdy behavior in the lunchroom.

In addition to the classroom educational theatre component, teachers and parents met in separate groups for a weekly, 2-hour workshop for 10 weeks. The sessions consisted of teaching the adult caregivers to recognize the temperament of the children. Parents and teachers were also taught to use strategies that matched each child's temperament to enhance parental- and teacher-child behavior management and the children's self-regulation.

Without the use of medications, *INSIGHTS* has demonstrated efficacy in reducing both minor behavior problems in children as well as more serious disruptive disorders, including attention deficit hyperactivity disorder, oppositional defiant disorder, and conduct disorder without the use of medication (McClowry, Snow, & Tamis-LeMonda, 2005). The program has also been found to enhance classroom management (McClowry, Rodriguez, Tamis-LeMonda, & Snow, 2010). A more comprehensive description of the program is provided in the Methods chapter.

Need for the Study

This study explored how puppets, when utilized through an educational theatre medium as both an intervention and a data collection method, created a unique blend of techniques that can contribute to the existing literature. This section addresses the following: (a) why the recognition of certain temperament traits is important, (b) what the children tell us about their perceptions of their temperaments and what we may overlook by not asking them, (c) whether children can provide accurate self-reports, and (d) what gaps exist in the literature.

The Importance in Recognizing Child Temperament

Child temperament is defined by the consistent behavioral reactions that an individual displays across different situations and environments, which are most evident when exposed to change or stress (McClowry, Halverson, & Sanson,

2003). Research on temperament is critical because it identifies children who are at-risk for developing early problem behaviors that often lead to more serious disorders. Shiner and Caspi (2003) stated that childhood temperament can be important markers in predicting “maladaptive, rigid behaviors” that can have serious repercussions. For example, in one study, the academic functioning and aggressive behavior of a child transitioning into the fourth grade strongly predicted the child’s performance in future years (Elias & Berk, 2002; Stormont, Espinosa, Knipping, & McCathren, 2003). Behavior problems surfacing in the early years of childhood often escalated throughout middle school and adolescence, creating patterns that were associated with academic failure and peer rejection (Elias & Berk, 2002). Therefore, early identification and the implementation of prevention and intervention strategies are imperative before negative behaviors exacerbate and become ongoing academic and behavioral difficulties (Walker, 1998).

Recognizing how children perceive their own temperament may be a vital resource in identifying the precursors to their behavior problems. Children may recognize certain aspects of their temperament that may not be identified by their parents or teachers. Measelle et al. (2005) found that children and observers were more accurately able to report feelings of anxiousness and sadness than were their parents and teachers. This finding supports that children may be more attuned to their own temperament than are their parents and teachers—especially when they involve internalizing mechanisms. Likewise, DiBartololo and Grills (2006) found

that children were better able to assess their anxiety level than their teachers and parents. Anxious symptoms in young children have been found to be internally consistent and stable and associated with levels of reading achievement (Ialongo, Edelsohn, Werthamerlarsson, Crockett, & Kellam, 1994). These findings support the recommendation that young children should be included in the measurement of their anxiety and depression (Luby, Belden, Sullivan, & Spitznagel, 2007).

Spooner and Evans (2005) support the importance of self-reports in identifying temperament characteristics. They found that, among children who self-reported as shy, approximately one third were not considered to be shy by their parents and teachers. Children who self-identified as shy but who were not regarded by their adult caregivers had lower self-esteem and lower perceptions of academic competence than those that were regarded as shy by their caregivers. This finding suggests that studies (and caregivers) that do not take into account children's perceptions of themselves may be missing an important part of early identification.

The reliability and validity of children as self-informants, however, has been controversial. Some researchers claim that children are capable of providing accurate self-reports if acquired through developmentally appropriate measurement tools (Ablow et al., 1999; Arseneault, Kim-Cohen, Taylor, Caspi, & Moffitt, 2005; Brown, Mangelsdorf, Agathen, & Ho, 2008; Luby et al., 2007; Marsh, Ellis, & Craven, 2002; Measelle, Ablow, Cowan, & Cowan, 1998; Measelle et al., 2005; Sessa, Avenevoli, Steinberg, & Morris, 2001; Van den

Bergh & De Rycke, 2003). Others question children's cognitive capacity to give valid self-assessments (Schwab-Stone, Fallon, Briggs, & Crowther, 1994; Stipek, 1981). Given these conflicting findings, it is imperative that more research needs to be conducted in the area of children's self-reports.

Although there have been many studies that have examined children's self-reports, only a few studies explored how children perceive their own temperament. Widening the scope of self-reports to include personality traits such as temperament will increase our knowledge of children's development of self (Brown et al., 2008; Davis-Kean & Sandler, 2001).

Fewer still are the studies that have examined the use of puppets as a tool to elicit children's self-reports. This study examined innovative strategies used in educational theatre for both educational and measurement purposes that seldom have been analyzed with both qualitative and quantitative research methodologies. The literature on educational theatre predominately focuses on qualitative research methods to capture the properties unique to this field. Although qualitative research provides valuable information, investigating educational theatre through both qualitative and quantitative lenses will enrich the field's base of knowledge and will offer deeper insight into how children perceive themselves.

Limitations

This study was a secondary analysis of data collected as part of three efficacy trials that were conducted over a 15-year period. Although there are

many advantages to conducting a secondary analysis, such as being able to draw from a larger sample size and utilize the data in new ways, there are also limitations to this approach (Trochim, 2001). In this case, one limitation of the data stems from the format of the interview. The children's puppet selection was limited to four puppets that represented the four temperament profiles identified by McClowry (2002) without examining the underlying relevant temperament dimensions. The development of the puppets and other intervention materials, although empirically based, were in place prior to the conception of this investigation and could not be altered. In addition, the content, delivery, and efficacy of the *INSIGHTS* classroom sessions were not examined in this study.

As a part of the *INSIGHTS* team, I also have conducted many puppet interviews but did not collect data from all 300 respondents. Although the interview structure remained consistent throughout the three prevention trials, there was variation in how the interviews were conducted due to the use of multiple data collectors.

CHAPTER II

REVIEW OF THE LITERATURE

The chapter describes what is empirically known and clinically accepted among professionals who implement puppetry as an educational theatre medium in their work. Quotes from the *INSIGHTS* puppet sessions that I conducted are embedded throughout this section to illustrate the conclusions drawn from the literature regarding puppets. Other components that are addressed include: self-perception, gender identity and development, make-believe play, drama and education, teacher-in-role, role play, improvisation, puppetry as an art form, puppets and education, puppets and therapy, projective methods, temperament, using puppets as a measurement method, and a more comprehensive description of the *INSIGHTS* program.

Self-Perception

Research on children's reactions to puppets requires an understanding of their growth and development. One of the critical components of children's maturation is developing a sense of self-perception. Gender identification plays an important role in this process.

Gender Identity and Development in Children

During the ages of 4 to 5, gender knowledge and behavior increase dramatically as children begin to categorize by gender (Bennett & Sani, 2003; Ruble & Martin, 2006). When children enter the concrete operational period (5 to 7 years of age), their understanding of gender constancy begins to solidify during which gender stereotypes peak in rigidity (Ruble & Martin, 2006). By 5 years of age, boys and girls had more positive views about their own sex compared to the other sex (Yee & Brown, 1994). In their gender schema theory, Ruble and Martin (2006) explained that:

schematic consistency refers to children's tendencies to bring their attention, action, and memories in line with their gender schemas. Once they identify themselves as boys or girls, children seek details and scripts for same-sex activities, show in-group biases, and become more sensitive to sex differences. Children are motivated to behave according to gender norms as a means of defining themselves and attaining cognitive consistency (p. 909).

From preschool through middle school, children are likely to choose same-sex peers as friends (Ruble & Martin, 2006). They are also more likely to choose "gendered-typed toys" (Hughes, 2010). Studies of preschool and kindergarten children have found that they engage in stereotyped toy selection and activities during free play (e.g., Maccoby & Jacklin, 1987, Martin & Fabes 2001; Martin & Ruble, 2009).

Studying play behavior among children offers insight into their development and their self-perceptions. The literature provides compelling

evidence that young children's identity is highly related to their gender. In this study, the perceptions of the children about their temperaments were examined by gender.

Make-Believe Play

One does not have to observe children very long before they engage in play behavior. Symbolic play fosters the cognitive, emotional and social development in children (Berk, Mann, & Ogan, 2009; Henig, 2008; Scarlett, Naudeau, Salonis-Pasternak, & Ponte, 2005; Zigler & Bishop-Josef, 2009). According to Piaget (1951), children in early childhood (before age 6) engage in the second stage of play—make-believe and symbolic games. Current cognitive-development theorists assert that make-believe and imagination continues to develop into adulthood (Scarlett et al., 2005).

Cognitive development is enhanced when children play. Play is an activity through which children can digest information, process information, and consolidate knowledge (Scarlett et al., 2005). Cook (1917) stated that children use play as a rehearsal to try out their strengths in a make-believe big world. They also develop new skills engaging in play.

Psychoanalytic theorists assert that play also gives children space to explore their feelings and understand reality. Scarlett et al. (2005) applied Piaget's (1951) terms *compensatory* and *liquidating combinations* to explain the use of play to help manage emotions. Compensatory combinations refer to taking

unpleasant, real-life situations and creating a more positive one through play.

Liquidating conflicts involve using make-believe play to eliminate or reduce bad feelings. Through these re-enactments, children possess power and control within an environment that is imagined.

In the make-believe environments created by play, social development is enhanced. Children share feelings and experiences and opportunities to negotiate conflict (Scarlett et al., 2005). Play encourages children to take turns, collaborate, and follow rules. Empathy, self-confidence, and motivation are also developed through play (Zigler & Bishop-Josef, 2009). In addition, play is instrumental in fostering the development of self-regulation (Zigler & Bishop-Josef, 2009). One of the ways children learn to self-regulate is through a form of play—drama.

Drama and Education

The roots of drama lie in play; therefore, it is a natural transition to utilize this medium to enhance learning in children (Heathcote, 1984b; Landy, 1982).

Drama and education have taken many forms—process drama, forum theatre, creative play, creative drama, drama in education, and creative dramatics to name a few (Bolton, 1979, 1984, 1999; Heathcote, 1984b; Landy, 1982; McCaslin, 2006; Nichols, 1960; O'Neill, 1983, 1995; Shaftel & Shaftel, 1952; Shaw, 1999; Spolin, 1986; Viola, 1956; Way, 1998). Drama is utilized in the classroom and skilled teachers incorporate it into the curriculum to help facilitate learning (Landy, 1982).

Drama was incorporated throughout the *INSIGHTS* educational theatre program by using puppets, teacher in role, role play, creative dramatics, and improvisation. The children learned how puppets react to similar situations differently, depending on their temperament. The puppets shared their dilemmas with the children, and the children helped the puppets to solve their dilemmas. Later in the program, the children used hand puppets to explore their feelings and used their learned knowledge from the puppets to solve their own dilemmas.

Teachers

Before discussing the role of drama in the classroom, it is only fitting to begin with the teachers' role in implementing drama in the classroom. The traditional role of teachers is to "instill" knowledge where "the teachers teach and the students are taught" (Freire, 2003, p. 73). The *INSIGHTS* facilitators differed from the traditional classroom teacher in that the facilitators implemented a more "Freirian" approach by recognizing that the children's experiences and knowledge are valid and that learning is a symbiotic relationship between teacher and student. The *INSIGHTS* facilitators relied on the children's experiences and creative power and, "to achieve this, they must be partners of the students in their relations with them" (Freire, 2003, p. 75). Specifically, the facilitators' role was to orchestrate the drama, role-plays, and improvisation by starting where the children were, supporting them and fostering growth.

Through *INSIGHTS*, classroom teachers participated in this ideology of incorporating drama to facilitate teaching and learning. During the *INSIGHTS* educational theatre puppet program, the teachers observed the *INSIGHTS* facilitators using the puppets and talking about different temperaments. Later, when the children explored how to resolve their own dilemmas, the teachers participated by working with the *INSIGHTS* facilitators by using puppets to help the children solve their dilemmas. This opportunity allowed the teachers to participate in using drama as a medium with children.

Teachers are expected to foster the development of their students both mentally and intellectually (Bolton, 1979). One way to foster emotional growth is through drama. Using drama in the classroom is different from most academic experiences. The teacher does not possess all the answers but can express one viewpoint while the child may offer another (Heathcote, 1984b). As a result, children are encouraged to test out different solutions.

In order to effectively use play in the classroom, teachers must have an understanding of the interests, problems, and questions of their class (Nichols, 1960). It is also important to accept children for who they are (Heathcote, 1984b). Teachers must begin their curricula at a point that corresponds to the students' academic readiness and development and structure learning so that the children can expand their knowledge (Day, 1983; Heathcote, 1984b).

The teacher's role is to help the child acquire new knowledge by introducing new contexts or skills (Bolton, 1983). Through the use of drama,

different views are “expressed, explored, and challenged” and teachers enable children to “explore and extend their world views” (Wilhelm & Edmiston, 1998, p. 17). For teachers to build upon the knowledge of their students, the teacher must “fold in” meaning into the learning. Bolton states that there is a balance between the teacher’s play and children’s play because the teacher’s goal is an educational one whereas the child’s goal is to decide what happens next (Bolton, 1979, 1983). Vygotsky (1978) describes this folding in as the *zone of proximal development*, which means that the child is guided from what he or she can do alone to learning new skills with the support of others. Bruner (1986) defines this process of building on children’s pre-existing knowledge and skills with the support of others as *scaffolding*.

One way to scaffold and support children’s learning is by using an educational theatre approach called *teacher in role* in which the teacher becomes a part of the drama by working alongside the students. The teacher is simultaneously working ahead of the students to lead the class towards the educational objective. The teacher may slip in and out of role to facilitate reflection among the students (Bolton, 1993). Wilhelm and Edmiston (1998) assert that this approach is very effective for student learning. Bolton stated that “Heathcote's use of ‘teacher in role’ gave participants and observers alike a strong sense of feeling ‘it is happening now,’ for the emotions felt were real emotions” (1985, p. 155). These leading theorists believe that incorporating teacher in role and role-playing is a valuable medium in the classroom, and the puppets used in

INSIGHTS provide a specific role for facilitators, teachers and children to role-play.

Role Play

Role play has its roots in psychodrama and sociodrama which were developed by J.L. Moreno (Landy, 1982; O'Neill, 1995). Role play is a strategy for students to develop empathy and understanding of different situations.

Heathcote (1984b) defined educational drama as “role-taking”:

to understand a social situation more thoroughly or to experience imaginatively via identification in social situations. . . . Dramatic activity is the direct result of the ability to role-play—to want to know how it feels to be in someone else’s shoes. (p. 49)

Heathcote also asserts that dramatic role play “leads to the authentic ‘real me,’ my true feelings—the essential self” (Nicholson, 1996). O’Neill (1995) expands the view of role play as providing:

an experimental setting in which we can investigate questions of identity and explore both the power and the limitations of the roles that we may inhabit. This exploration of identity through role-play and in particular, role-playing within a role, is for me, at the heart of all drama. It is the single more powerful source of significant meaning in the work and the root of the dramatic action. (p. 144)

Children think and learn through role-playing, not by discussing it, but by being within the situation (Heathcote, 1984b). Children also develop communication skills through both the conveying of a different idea and their role in the drama activity (Heathcote, 1984b). The role-taker absorbs all relevant information and interacts with others, providing the freedom to try out different

possibilities (Heathcote, 1984b). By doing so, process allows the learner to practice social skills and different ways to solve real-life problems (Nichols, 1960).

Through exploring different ways to solve problems, children use role play to experience the perspectives of others (Nichols, 1960; Wilhelm & Edmiston, 1998). A child learns how he or she is different from others as well as discovering similarities. The process gives children the opportunity to identify with others and allows children to understand that their peers may be experiencing similar issues (Nichols, 1960). They also observe how others resolve situations and recognize that there are a number of ways to approach and solve problems. Children can compare similar situations with others and try out different solutions (Heathcote, 1984b). In this study, because the four puppets each have a different temperament, they react differently when they encounter a dilemma. The children are encouraged to consider the situation from the different perspectives of the puppets. By role-playing the resolution of the dilemmas with the various puppets, the children expand their understanding of others and of themselves.

When children role-play, they are able to practice these different solutions in a safe and protected environment (Heathcote, 1984b; Nichols, 1960; Wilhelm & Edmiston, 1998). This process can help to create community and a sense of belonging (Heathcote, 1984b). As a collective group, they must negotiate and agree about what is taking place in the drama. As a result, children begin to experience situations from the viewpoints of others. This environment leads to the

creation of community, a process which Wilhelm and Edmiston (1998) have described as follows:

Using drama in the classroom opens up the possibility of cooperative intense processes of discovery, creation, and learning. Together, the group collaboratively explores events, ideas, and themes through physical, intellectual, and emotional engagement with experiences, roles, and situations brought to life through their collective imagination.” (1998, p. 5)

This sense of shared power comes from the fact that “authority is vested in each member of the class through a self-restraint exercised in order to achieve the desired goal” (O'Neill, 1983, p. 40).

Role-playing encourages children to become more self-reliant and self-confident, to learn self-discipline, and to resolve their own conflicts (Nichols, 1960). Drama has been seen as “stirring the essential individuality of the class members” (Waltkins, 1983, p. 39) and as a way of “being and becoming human” (Shaw, 1999). In the drama world, children’s sense of responsibility and significance is fostered and they connect and relate to others’ experiences; therefore, their perceptions of their classmates and of themselves are changed (Wilhelm & Edmiston, 1998). A key element of role play is the use of improvisation.

Improvisation

As defined by Heathcote (1967), improvisation is the “discovering by trial, error and testing, using available materials with respect for their nature, and being guided by this appreciation of their potential” (p. 27) where the “finished product”

is solely the experience of it. She continued by stating that improvisation is a process in which “we discover ourselves” through learning by “putting ourselves in other person’s shoes” (p. 27). This discovery allows the participants to experience something from another person’s point of view. In addition, Taylor (2006) stated that improvisation can be used for teaching and learning in that improvisation can “harness students’ imaginations, create dramatic contexts for learning other subject areas, provide complex language opportunities, and give significant dramatic experience” (p. 123).

Puppetry is one way for improvisation and role play to occur in classroom. *INSIGHTS* utilized puppets for children to explore different ways to solve dilemmas. The children used puppets as an extension of themselves as well as the role of other students and puppets to help solve dilemmas. This increased awareness of oneself and others through role play and improvisation allowed a deeper self-perception and may have provided a more accurate assessment when selecting a puppet that is most like them.

Puppets and Education

Puppetry is a powerful art form that has been around for centuries. Puppetry is found in cultures all over the world (Batchelder, 1947; Batchelder & Comer, 1956; Blumenthal, 2005). The art of puppetry “constitutes an internal language,” meaning through movement alone, one can “differentiate between bodily attitude and facial expressions” (p. 17) and interpret meaning (Blumenthal,

2005). There are many types of puppets – puppet heads, glove puppets, rod puppets, shadow puppets, and marionettes (Currell, 1985). Puppetry is a unique art form because it involves the puppeteer as a “sculptor, actor, playwright, dancer, political commentator, and stagehand” (Blumenthal, 2005, p. 20). One purpose of puppetry is to educate.

Puppetry is an art form that is often used in the educational theatre field with young children. Children are mesmerized by puppets. This became immediately clear to me within seconds of placing one on my hand and conducting an *INSIGHTS* session. The following accounts from my experience as a puppeteer at *INSIGHTS* are embedded throughout this section. They illustrate and support the literature on puppetry with children.

Squeals of excitement burst throughout the room. Children squirm and push to be in the front row and gather around the duffle bag.

*I hunch over, my voice lowering to a whisper, “We all to have sit down. Coretta is shy. If we want to meet her, we have to be
very
very
quiet.”*

The bag wiggles a little. Students giggle and squirm with anticipation. I slowly bend closer to the children and place my finger to my lips.

.....complete silence.....

Minutes prior, the rambunctious children were running about the classroom, the room in complete disarray. They are now . . .

completely . . .

still.

I turn to the duffle bag. All eyes focus on the bag—waiting for Coretta to come out.

I am momentarily taken off guard at how

EVERY SINGLE CHILD

*is **completely** fixated on the bag.*

Coretta very, very s - l - o - w - l - y peaks her head from the opening of the bag.

*The class **gasps** with excitement.*

Coretta quickly retreats.

The class quiets down and I gently coax Coretta to come out.

The students, now so gentle, so empathetic watch

FROZEN

with excitement.

At that moment, I truly understood the magic of puppets.

Proponents of puppetry explain that because children perceive puppets as play, the art form has a number of benefits (Astell-Burt, 2002; Hunt & Renfro, 1982; Irwin, 2000; Philpott, 1977). Puppetry fascinates children; allows them to distance themselves from real-life situations; lets them safely project their feelings, thoughts, and emotions; and provides a medium for the therapist and educator to understand and communicate with children (Hall, Kaduson, & Schaefer, 2002). This next section demonstrates the aforementioned ways in which therapists and educators have observed children's reactions to puppets and recognized the value of this art form in their work.

Puppetry immerses children in the world of make-believe. They pretend that the puppet is a friend who knows them and can communicate for them (McCaslin, 2006). After participating in *INSIGHTS*, the children's attachment to

the puppets is very apparent. One of the children clutched onto the stick puppets that they received at the end of the program and said that the puppets were the only ones that understood him. While I was facilitating the puppet workshops, it was also clear how easily children could access their imagination and play. The following passage describing my introduction of one of the puppets demonstrates this point.

*First and foremost, I am not a ventriloquist. I sit in a chair next to the puppet while the puppet “talks” to the class. It was my fourth session with this kindergarten class when I introduced Gregory the Grumpy. As Gregory began to talk about his day, one child pointed at me and exclaimed, “Hey, **you’re** talking—**not** Gregory!” All eyes turned to me. Some were surprised. Others were momentarily confused because they had forgotten that I had been sitting next to the puppet the entire time. I had to contain the bubbling smile that was rising in me while Gregory continued to grumble, drawing attention away from me and back to the lesson.*

Puppetry allows children to become lost in a make-believe world in which they have the freedom to hear anything (Astell-Burt, 2002). Children attend to the puppets more than the puppeteers. Therapists have used this method to convey thoughts, recognizing that children are more receptive to what the puppets have to say versus the therapist alone (Carlson Sabelli, 1998; Carter & Mason, 1998; Dillen, Siongers, Helskens, & Verhofstadt-Deneve, 2009; Egge, Marks, & McEvers, 1987; Frey, 2006; Gendler, 1986; Hawkey, 1947; Howells & Townsend, 1973; Irwin, 1985, 2000; Irwin & Schaefer, 2002; Weiss, 1998). The following observation from one of my puppet sessions with the children serves as a clear indication of the power of puppets:

I was attempting to explain the homework for next week. The children were fidgeting and looking everywhere but at me. A wave of defeat was washing over me. "What am I going to do? They aren't interested!" I thought. I remembered that Hilary the Hard Worker was still on my hand and had been quiet for quite some time. She quickly woke up and began explaining the assignment. The entire class perked up and was completely focused on what Hilary was saying. "Whew!" From then on I continued to engage the puppets in as much dialogue as possible—it was evident they were more open to listen to the puppets than to me.

Distance and control also contribute to the effectiveness of puppets.

Because the puppet is acting out the situation and not the child, there is a perception that the child puppeteer assumes little to no responsibility. Thus, a safer environment is created, reducing the risk of self-embarrassment (Woltmann, 1972). With a collective belief that the puppet is autonomous, freedom is given to the puppeteer to do or say anything. There were many moments in the classroom when children, normally very shy, were able to use puppets to convey their feelings. For instance, I recounted the following:

Imanni was a quiet and cautious child. During recess she refused to play with another little boy. This was unusual for her, and her teachers asked her why she didn't want to play with him. She refused to answer. When the class was prompted to bring up any dilemmas they have with fellow classmates, the teachers were shocked that Imanni volunteered. Imanni chose Coretta the Cautious puppet. Coretta proceeded to tell the class that early in the day the little boy was mean to her. When he wanted to play at recess with her, she was hurt and did not want to play with him. This left the teachers speechless. Imanni had never spoken in front of the class before.

Puppets create a safe screen that protects children allowing them the freedom to express their emotions and reveal aspects of themselves without being entirely conscious of doing so (Bromfield, 1995; Gendler, 1986). Landy (1983)

concluded that emotions that are not expressed in real life can be enacted through this distancing method. The puppeteer is able to explore emotions and behaviors that are not as acceptable in real-life, such as greed, anger, naughtiness, and violence (Bromfield, 1995; Gendler, 1986). The children know that the puppet is not injured nor does it feel any pain so they are free to “kill” or beat up the puppet (Landy, 1983; Woltmann, 1951).

Puppetry also creates distance from real life and provides children physical and psychological safety to express their emotions in a nonhuman way. Children find solace in the fact that puppets are not human and that they are not limited like the puppeteers. Instead, puppets can engage in nonhuman or superhuman behaviors (Currell, 1985). They can tell adults what to do, use superhuman strength to lift cars, and be heroes and save the day.

Acting out past occurrences provides children with an opportunity to tell their stories in a way that provides a sense of control over situations where they may have been or felt helpless (Bromfield, 1995). The recreation of a complicated situation that has happened in the past can be re-enacted more quickly and with more detail using puppets than by just talking about it. This was evidence during my sessions.

No one in class wanted to be near Brenda in fear that she would hit or push them. After one of numerous altercations, the teacher asked if I could pull Brenda out of class to discuss her behavior. I asked Brenda why she pushes and hits her classmates. She merely shrugged her shoulders and remained quiet. We both chose a puppet and I asked if we could talk, puppet-to-puppet, about pushing and hitting. A complete Broadway musical number broke from her lips. She began singing about how nobody understands or

likes Hilary, the puppet. Brenda also disclosed that Hilary would hit or push her classmates when they said mean things to her. She proceeded to beat up the other puppets in anger and frustration.

Constructionist philosophy of knowing involves the belief that one must question, problem solve, and act in order to understand and know (Scarlett et al., 2005). Drama implemented as a way to act out possible future situations is also an important role for development. Boal (1979) identified audience members as both spectators and actors and stated that the “spect-actor assumes the protagonic role, changes the dramatic action, tries out solutions, discusses plans for change—in short, trains himself for real action!” (p. 122). Through this technique, Boal involves the audience members in breaking down the fourth wall. The spect-actor replaces the actor on stage and resolves the conflict. Engaging the audience members allows them to rehearse and use the skills developed from the theatre in the real world. The following story recounts a fellow team member’s experience when collecting data from one of the participating parents:

As I was finishing up the interview with a parent, I asked her if her son had ever talked to her about the program. Here's her response:

"No, I haven't. Wait! Is it the one with the sticks?! Yes! Actually this is so odd because just this week my son was talking to his 3-year-old cousin. I didn't know what he was talking about. She asked if she could hold his sticks and he told her "No" because she wouldn't take care of them. He explained to her that they teach kids appropriate behavior. And that Coretta is cautious and looks both ways before crossing the street. One rainy morning we were leaving the house and one of the sticks, "Coretta," was outside on the wet ground. He became so upset! I just thought they were just sticks. He said, "No, Mom. You don't understand they help kids! They teach how to behave!"

Puppets provide children with the opportunity to use their imagination and model adult life and behavior. They can safely try out possible scenarios (Astell-Burt, 2002). “Real-life” situations can be rehearsed through enactment among puppets before the actual event takes place. Cook (1917) stated, “A natural education is by practice, by doing things, not by instruction, the hearing how” (1917, p. 1). Children participating in *INSIGHTS* practiced solving common classroom dilemmas with the puppets. The following recounts a dilemma that I presented to the class:

Coretta, the puppet, was frustrated with Hilary, the puppet, because she was not paying attention and the line had moved down the hallway.

“What should Coretta do?” I asked the class.

“Push her!” the children hollered.

For many of the children, pushing is the first thing that comes into their minds because they are not aware of alternative ways to handle the situation. After discussing the repercussions of pushing someone, the children offered different ways to handle the situation such as tapping Hilary on the shoulder and letting her know that the line had moved. Then students demonstrated how Coretta can solve the dilemma. Having the children rehearse other options with the puppets allowed them to experiment with different ways in which to handle the dilemma.

Puppets not only allow children to try out different scenarios without the fear of retaliation or punishment, they also create an opportunity for the children (both the puppeteer and the audience members) to experience a situation from another point of view by exploring other roles and perspectives (Currell, 1985). Children naturally embrace different roles in dramatic activity, and puppetry

naturally lends itself to exploring “possible selves and alternate realities” (O'Neill, 1995). The puppets allow a child to “become somebody else” and to “see how it feels” (Heathcote, 1984a, p. 53). O'Neill explained the role of drama as follows:

The direct result of our ability to play with and transform the roles we inhabit. Theatre is an innovative laboratory for the exercise of our capacity to transcend the social roles and types that in real life we may have been unable to elude. (O'Neill, 1995, p. 79)

Heathcote (1984a) explained that role-taking is one of the most efficient ways to explore the emotional experience without having to go through the actual situation. Role-taking also “provides a window through which to view the ways that children and older individuals develop role concepts based in genres, family, and culture” (Landy, 1993, p. 17). By exploring other perspectives, empathy and moral development are fostered. O'Neill (1995) describes the transformation that occurs through role-playing as beginning with projection, then identification, and then finally empathy. I have witnessed this transformation even within the “toughest” of children.

Milton was disruptive. He often hit or shoved classmates when his teacher turned her back. I needed volunteers to act out a scene where Gregory, the puppet, pushes Fredrico, the puppet. Milton was enthusiastically volunteering to be Gregory and was upset that I had not chosen him. When I asked for volunteers to be Fredrico, he raised his hand again, albeit, not with as much enthusiasm. This was my intention—to have Milton take on the role of being bullied. After role-playing the initial scene where Gregory pushes Fredrico, I asked both puppets how they felt. I proceeded to inquire with Fredrico why he thinks Gregory pushed him. “Fredrico” proceeded to discuss his and Gregory’s feelings. He stated, “Gregory was upset because Fredrico didn’t want to be his friend at recess. Fredrico probably felt hurt because Gregory just pushed him and didn’t tell him why he was mad.” The dilemma continued with Fredrico and Gregory having a conversation about

hurt feelings. The teacher looked at me astonished and mouthed, "WOW!" She had never heard him express empathy for a classmate.

The effectiveness of puppets when working with children is supported by the literature and my own experience. Educational theatre methods, such as role-play, forum theatre, and creative dramatics are integrated into *INSIGHTS*. For example, the children are asked to use their "magical observation glasses" and to identify which puppets are most like their family members. The children also are taught that some situations are challenging for some individuals and easy for others, depending on their temperament. Another technique is used when the puppets and the children work together to solve dilemmas. Before the puppets perform their dilemma, the students whisper, "1, 2, 3, action," which signals to the class that everyone should focus on the puppets. After the children offer a number of suggestions on how to solve the dilemma, the children try out various solutions. If the puppets get "stuck," the facilitator incorporates the distancing method and asks the puppet, not the child, if he or she wants the class to help. As the students became more familiar with the process, the children, with the help of their teachers, report dilemmas that occur during the week and are often resolved during the intervention session with the help of the puppets. As the ten week program progresses, the students become more independent in using the puppets to resolve dilemmas. Working in pairs, they choose a puppet that is most like them and solve dilemmas on their own. At the end of each session, the facilitator asks the puppets to perform how their dilemmas were solved in front of the class.

In many classrooms, the teachers designate a dilemma table. Whenever a dilemma occurs between the sessions, rather than using class time, the teacher instructs the children to go to the dilemma table and use the puppets to work it out (see Appendix A for examples of classroom sessions). The following is an example of a dilemma that was resolved by students in my *INSIGHTS* class:

Two students raised their hands because they had a dilemma. They both wanted to be line leader. I asked the students if they would like the puppets and the rest of the class to help solve their dilemma. They agreed and came up to the front of the room with the puppet they said was most like them. One chose Coretta and the other selected Hilary.

I asked the puppets to reenact the dilemma.

The class whispered, “1, 2, 3, action.”

Hilary stated, “I want to be line leader.”

Coretta responded, “No, I’m line leader.”

Hilary argued, “No. I get to be line leader.”

Knowing that the puppets were now “stuck” and that this conversation was likely to continue in circles, I said, “Freeze.” I looked at Coretta and Hilary and asked, “Do you want to ask the class for help in solving your dilemma?”

They both nodded, and Hilary asked the class, “Can you help us solve our dilemma?”

Children gave suggestions—“They can take turns.”

I asked Coretta and Hilary if that’s how they would like to solve the dilemma.

They both nodded. Hilary said, “Okay. I’ll go first.”

Coretta shook her head and said, “No, I want to go first.”

I looked at the class and asked, “Did they solve their dilemma?”

The class responded, “No!”

I looked at Coretta and Hilary and asked them, “Do you want to ask the class for help?”

They nodded, and Hilary asked the class, “How can we solve the dilemma?”

One student suggested that they tell the teacher. Another student said that one can lead to the lunchroom and the other can lead after lunch. Another child suggested that one could walk half of the way to the cafeteria—to the end of the hall—and the other could lead the rest of the way.

I asked Coretta and Hilary if they could agree on one of the suggestions. Coretta, who remained fairly quiet throughout, offered to walk half the way so that Hilary could lead the second half. Hilary agreed. During lunch they both got to be line leader.

Anecdotal stories like those presented above are often recounted by individuals who use puppets to work with children. Descriptive case studies, personal observations, and how-to instructions on using puppets in therapy are abundant in the literature (Philpott, 1977). Although many sources address how to make puppets, put on a puppet show, and use puppets in an educational setting, research documenting the empirical value of puppets is limited but is growing.

Puppets and Their Therapeutic Benefits

A number of descriptive case studies have explored the therapeutic benefits of puppetry (Bender & Woltmann, 1936; Currant, 1985; Dillen et al., 2009; Egge et al., 1987; Eisenberg et al., 1997; Frey, 2006; Gronna, Serna, Kennedy, & Prater, 1999; Hawkey, 1947; Howells & Townsend, 1973; J. A.

Kelly, 1981; Oatman, 1981; Rayna, Ballion, Breaute, & Stambak, 1993; Weiss, 1998; Woltmann, 1972; Zuljevic, 2007). These reports are anecdotal accounts of the benefits of using puppets with children. The reports cited most often is Bender and Woltmann's work (1936; Woltmann, 1960). Bender and Woltmann were among the first to document puppetry as a psychotherapeutic method for treating behavior problems in children.

In their classic study, Bender and Woltmann (1936) conducted puppet shows and classes for children with behavior problems at Bellevue Hospital in New York City. The puppets were intended to assist the children in expressing their emotions—both negative and positive—about issues arising at home, school, and in their neighborhood. The children also were encouraged to work out aggressive behaviors and emotional problems with the puppets. Bender and Woltmann recorded several cases in which the shows seemed to have therapeutic benefits. The therapists observed that the medium provided them with valuable diagnostic and therapeutic understandings of the children's lives. The children appeared to have greater insight and enhanced empathy. The children also reported that the puppet shows helped them realize that other children experienced similar types of emotions.

In another study, Gendler (1986) helped children identify their feelings about their parents' separation or divorce by watching a play performed by puppeteers. The children also devised a puppet show about families and gave the play a title and a moral to the story. The children were instructed that they could

make up anything they wanted, with the only exception being that the storyline could not come from television or movies. Several overarching themes were reported by Gendler (1986). From the therapists' observations, the puppet stories created by the children and the interviews with the puppets revealed more insight into children's feelings about their family members than individual counseling and therapy were able to produce. Children also felt connected to the puppets. Many of the children brought their puppet home and slept with it. Parents and therapists noticed the children, especially the boys, were becoming "more cooperative and open with their feelings" (p. 48). They hypothesized that the use of puppets helped validate their feelings of anger and aggressiveness. Acceptance by the puppet helped the children move past these emotions. Deep-seated negative emotions about parents and family emerged from all children, even those who seemed well adjusted. The puppet shows gave the children an opportunity to work through their internal conflicts with their caretakers. For example, some children expressed their struggles with divorce by having the puppet demand to be physically cut in half or by running back and forth between the two parents. Although these emotions were expressed during the puppet show, they had not been expressed during talk therapy. Instead the puppets allowed the emotions to surface so they could be acknowledged and explored further.

"Speaking the unspeakable" was another observation made by the therapists. One group of children acted out a domestic violence dispute, which was resolved by the police intervening. When the therapist asked the class as a

whole whether they had witnessed domestic violence, two children volunteered that they had. Even though both children were in individual therapy, they only disclosed the information when using the puppets. The therapists concluded that the children felt protected by the puppets, which allowed them to reveal their deepest emotions and fantasies. As with Bender and Woltmann (1936; 1941), Gendler (1986) found that the group process also allowed children to develop empathy and support for each other and were able to gain a sense of control and empowerment over the telling of their lives.

As reported in a number of other case studies, other therapists who implemented puppetry in individual sessions found this method to be one of the most effective mediums for diagnosing troubled children (Frey, 2006; Howells & Townsend, 1973; Irwin, 1985; Irwin & Schaefer, 2002). Although case studies have been beneficial for supporting puppets in the therapeutic field, relying on case studies as a foundation for puppets involved in therapy has a number of inherent limitations such as a lack of objectivity, limited generalizability, inability to diagnose cause and effect, and lack of a controlled experimental environment. Research critically examining puppetry from a theoretical and empirical basis is needed to reduce these limitations (Epstein, Stevens, McKeever, Baruchel, & Jones, 2008; Gendler, 1986; Howells & Townsend, 1973; Irwin, 1985, 2000; Weiss, 1998).

Projective Techniques

Throughout the *INSIGHTS* program, the children explore their own personalities using puppets as a projective method. They identify the puppet that is most like them and solve dilemmas through them. Projective techniques, also referred to as “free response measures,” are assessment methods designed to allow the researcher into the respondent’s inner world. This approach is known to gain access to the respondent’s personality as well as unconscious needs, motivations, and desires (Knell & Beck, 2000; Rabin & Hawarth, 1960). Projective techniques allow the respondent to answer within a structure that is less rigid than a questionnaire or survey, in which the answers are limited to true and false or a Likert-scale (Coulacoglou, 2008). Rabin (1960) categorizes puppetry as an expressive technique within the scope of projective techniques.

A rare instance of empirical support for the therapeutic use of puppets was conducted by Haworth (1957), who documented the effects of a filmed version of one of Woltman’s plays, *Rock-a-Bye, Baby*. The study was conducted to test the validity of puppetry as a projective method to explore and treat sibling rivalry. Two hundred and fifty children ranging from 4 to 10 years of age watched the film in small groups of 9 to 16 children. The film was paused right before the story was resolved, and the children were asked to create possible endings to the story. Then the children continued to watch the end of the story followed by individual interviews, during which they were asked about their attitudes and feelings toward the younger sibling in the movie. The children’s level of

projection in regard to sibling rivalry and their emotional distress were analyzed qualitatively and quantitatively. The findings revealed that there were significant differences between the children with and without siblings. Children with baby brothers or sisters had more negative feelings towards the baby in the play. In contrast, those who did not have younger siblings were angrier with the parents in the play. Children with younger siblings also showed significantly higher anxiety and conflict than those who did not have a baby brother or sister.

Two other related types of projective techniques have been developed specifically for young children: the Puppet Sentence Completion Task (Knell & Beck, 2000) and the Fairy Tale Test (FTT; Coulacoglou, 2002, 2008). The Puppet Sentence Completion Task was developed for children younger than 6 years old. It is similar to the Sentence Completion test that is used with adults and older children, but the tool was designed to capture the shorter attention spans of younger children and facilitate their process of sentence completion. Knell and Beck (2000) argued that the Puppet Sentence Completion Task is more developmentally appropriate for this age group because the method entails rehearsing the procedure to ensure that the child understands the process. To conduct the task, the therapist uses two puppets (Puppets A and B), and the child chooses another puppet (Puppet C). Puppet A, the therapist, begins with a sentence stem. Puppet B, also the therapist, completes the sentence. Then both Puppet A and B turn to Puppet C, the child, for an answer. For example, Puppet A states, "My name is —." Puppet B says, "[his or her name]." Puppets A and B

look at Puppet C. Puppet C responds and states, “[his or her name].” Then Puppet A may say, “My favorite ice cream is —” and Puppet B answers, for example, “chocolate.” Both puppets look at Puppet C to respond. Puppet C responds, for example, “strawberry.” Then Puppet A says, “I am —.” Puppet B answers “4 years old” and both puppets look at Puppet C. Puppet C then states his or her age. The therapist continues until the child understands the process. In Part II, the therapist uses one puppet and has the child’s puppet respond to the question. Some sentences include, “I am saddest when —” “Mommy is nice when —” and “Mommy is mean when —.”

Another more recently developed projective method for younger children is the Fairy Tale Test, which measures personality through structured storytelling and fantasy. The FTT is comprised of seven sets of picture cards—three cards per set. Five of the seven sets contain three different versions of a character from the story so that each card conveys slightly different emotions. The last two sets consist of scenes from the fairy tale. To conduct the test the examiner first confirms that the child is familiar with *Little Red Riding Hood* and *Snow White*. Then the child is asked to narrate the story, which is recorded. Then the child is presented with the first set of cards and asked a series of questions. For example, after telling *Little Red Riding Hood*, the child is shown three variations of the wolf and is asked, “What does each one think or feel?” The follow-up questions are “Which wolf is the one in the story of *Little Red Riding Hood*? Why?” and “Which wolf scares you the most? Why?” (Coulacoglou, 2008, p. 54).

These two examples of projective or “free response” techniques have been used with young children to elicit their unconscious thoughts and emotions about their personality. Personality includes temperament, traits, habits, skills, thought, social cognition, values, morals, and beliefs (Rothbart & Bates, 2006). Personality consists not only of behavioral reactions (temperament) but also of how individuals view themselves, others, the world, their life experiences, and their traits within a larger cultural and social context. Zuckerman (1991) stated that social determinants have more of an influence on personality, whereas biology plays a more dominant role in the formation of temperament. The *INSIGHTS* program uses puppets as a projective method to elicit the children’s self-reports of their temperament, which is a subconstruct of personality. The following section explains temperament research and some of the ways that the concept is measured.

Temperament

Literature on temperament is extensive and multifaceted. Given the vast scope of temperament research, this discussion addresses only the major themes from the literature. Although definitions of temperament vary by theorist, by incorporating the commonalities, temperament can be defined as the consistent behavior tendencies that remain constant over different settings and situations and is particularly salient during periods of stress or change (McClowry, Halverson, & Sanson, 2003).

Researchers have approached temperament theory from various perspectives—developmental psychology, personality theory, education research, genetics, and clinical psychology, to name a few. The definitions and measures of temperament differ across these disciplines, but there is some general consensus among temperament researchers. Most researchers agree that temperament is more associated with behavioral tendencies or styles than with concrete behavioral acts. The emphasis on the biological underpinnings of temperament, however, varies among theorists with more applied researchers, who have put more emphasis on the environment's contributions. Another point of agreement is the association between temperament and behavior becomes more complex as infants mature because of increased experiences and interaction with their environment.

Other aspects of temperament theory have received less consensus in the literature. Several differences among the major temperament theorists will be discussed briefly: Goldsmith and Campos, Buss and Plomin, Rothbart and Bates, and Thomas and Chess. Goldsmith and Campos (1987) focused on temperament from an emotion-based perspective. Biological influences do not play as large a role in their perspective as they do with other theories. In contrast, Buss and Plomin (1984) view temperament as being more strongly based in biology and setting the foundation for the child's personality. They focused on emotions, but primarily negative emotions. Buss and Plomin maintain that temperament traits are evident early in life, a constitutional part of personality, and heritable, and

therefore are biologically and physiologically linked.

From a slightly different perspective, Rothbart and Bates (2006) extended the definition of temperament beyond emotions, defining it as “constitutionally based individual differences in reactivity and self-regulation, in the domains of affect, activity, and attention” (p. 100). *Reactivity* refers to the excitability and responsiveness towards change in the environment, both internal and external. *Self-regulation* refers to the adjustment to reactivity.

The most clinically derived perspective on temperament comes from Thomas and Chess (1977) who stressed the importance of differentiating temperament from motivation, personality, and ability. They identified nine temperament dimensions in their work. Researchers have since recognized the overlap among these nine dimensions. Chess (1990) also defined three typologies of child temperament—difficult, easy, and slow-to-warm-up. Chess described *difficult temperament* as “the combination of biological irregularity, withdrawal tendencies to the new, slow adaptability, and frequent negative emotional reactions of high intensity” (p. 319). *Easy temperament* was defined as “the combination of biological regularity, approach tendencies to the new, quick adaptability to change, and predominately positive mood” (p. 319). The *slow-to-warm-up* temperament was “characterized by withdrawal tendencies to the new, slow adaptability, frequent negative emotional reactions of low intensity—often labeled ‘shy’” (p. 319).

Children's Self-Reports of Temperament Using Puppets

To assess young children's view of their temperament, researchers have employed puppets as a self-report method. The following sections discuss children's ability to self-report, statistical tests and their meaning, and the use of puppets as a self-report method for temperament.

Obtaining reliable information from young children has proven complex and multifaceted. Some researchers have questioned whether children under 7 years old are cognitively developed enough to give valid self-assessments. Specifically, primary-school children have restricted vocabularies, cognitive limitations, and short attention spans (Arseneault et al., 2005; Cugmas, 2002; Van den Bergh & De Rycke, 2003). Children are also developmentally more likely to believe in an "all-or-nothing" philosophy and are only able to comprehend "good" or "bad" (Brown et al., 2008). Moreover, children may feel pressured to answer in socially desirable ways (e.g. the tendency to portray one's self in a more positive or acceptable manner) in that they may feel inclined to identify with or report more "positively viewed" attributes, such as laughter and smiling and less likely to report more "negatively viewed" qualities, such as fear or anger (Comer & Kendall, 2004; Cugmas, 2002; Hwang, 2002; Paulhus, 1991).

Other scholars have attributed the potential inaccuracy of self-reports from young children due to other developmental characteristics. In particular, young children have difficulty articulating internal and psychological self-descriptions

and instead concentrate on using physical traits and possessions (e.g., Keller, Ford, & Meacham, 1978 as cited in (Brown et al., 2008), such as being tall, having long hair, or owning specific toys. Children may not be developmentally able to comprehend general descriptions of skill; in addition, they may not be able to utilize self-descriptions such as good-looking, smart, and athletic, instead needing to use more concrete examples, such as being a fast runner or good at completing puzzles (Cugmas, 2002).

Some researchers have challenged the notion that children are not reliable informants and have proposed that the lack of developmentally appropriate methods is responsible for the inaccuracy of their reports. Instead they assert that developmentally appropriate methods can provide accurate insight (Ablow et al., 1999; Arseneault et al., 2005; Arseneault et al., 2003; Bisceglia, 2007; Brown et al., 2008; DiBartolo & Grills, 2006; Eder, 1990; Hart & Damon, 1986; Hwang, 2002; Ialongo et al., 1994; Lemery-Chalfant et al., 2007; Luby et al., 2007; Measelle et al., 1998; Measelle et al., 2005; Sessa et al., 2001; Van den Bergh & De Rycke, 2003; Verschueren, Buyck, & Marcoen, 2001). Researchers have utilized puppets as a data collection method to assess young children's understanding of themselves in terms of their self-representations and socioemotional competence (Verschueren et al., 2001); self-perceptions (Ensign, 2005; Measelle, 1997; Measelle et al., 1998); psychological self-concept (Eder, 1990); self-esteem and self-concept (Davis-Kean & Sandler, 2001); family relationships (Cassidy, 1988; Stadelmann, Perren, von Wyl, & von Klitzing,

2007); self-views, social, emotional, and personality characteristics (Brown et al., 2008); prosocial behavior and emotions (Denham, 1986); behavior problems (Arseneault et al., 2005; Arseneault et al., 2003); antisocial behavior (Arseneault et al., 2003); depression and anxiety (Luby et al., 2007); and attention problems (Lemery-Chalfant et al., 2007).

Children's self-perception of their temperament has also been studied through puppetry (Bisceglia, 2007; Brown et al., 2008; Eder, 1990; Hwang, 2002; Measelle et al., 2005; Roth, Dadds, & McAloon, 2004). A commonly implemented methodology to measure children's perception of their temperament is the Berkeley Puppet Interview (BPI), which was developed by Measelle and his colleagues (Measelle, 1997; Measelle et al., 1998). Modeled after Eder's (1990) puppet interview, the BPI has two identical puppets, Iggy and Ziggy, who ask questions using opposing statements (e.g. "I am shy when I meet new people." and "I am not shy when I meet new people."). Then the child is asked, "How about you?" The puppets take turns stating both the negative and positive statements. Unlike Eder's (1990) interview structure, where the participants had to identify with one or the other puppet, Measelle et al. (1998) allowed the participants to respond verbally or by pointing and recorded and coded these responses on a Likert scale ranging from 1 to 7. Although the BPI was originally developed to measure children's self-perceptions on six behavioral and emotional domains—academic competence, achievement-motivation, peer acceptance, social competence, aggression-hostility, and depression-anxiety, Measelle et al.

(2005) later adapted the BPI to explore whether children could provide accurate self-reports on the Big Five personality dimensions of extraversion, agreeableness, conscientiousness, neuroticism, and openness.

The BPI provided the groundwork for others to adapt this method to assess children's understanding of their temperament. Bisceglia (2007), Brown et al. (2008), Eder (1990), Hwang (2002), Measelle et al. (2005), and Roth et al. (2004), however, all obtained low levels of reliability, indicating that children 7 years old and younger provided only limited validity in their assessment of their own temperaments.

To discuss the following studies, the next section explains the statistical methods used in the reviewed studies, such as internal consistency reliability, test-retest reliability, and cross-informant agreement, and defines low, moderate, and high levels. Nunnally and Bernstein (1994) defined internal consistency reliabilities, also called alphas, as the degree to which an instrument consistently measures the same construct. They stated that internal consistency should be at least .80, although .70 is adequate for newly developing tools or when measured on populations for which lower reliability would be expected, such as children. Ablow et al. (1999) defined internal consistency, $\alpha = .60$, as moderate when measuring adult responses but is consistent with other studies using children's self-reports.

Test-retest is another reliability assessment that measures individuals on two separate occasions. Roberts and DelVecchio (2000) conducted a meta-

analysis to establish estimates of mean population test-retest correlation coefficients from childhood to old age. Trait consistency increased from .31 in childhood to .74 in adults ages 50 to 70. Urdan (2005) defines a strong correlation as those larger than .50, moderate relationship as between .20 and .50, and a weak correlation between = -.20 and +.20. Roth et al. (2004) defined a *low* correlation as up to .40, a *moderate* correlation as .40 to .60, and a *high* correlation as above .60.

Cross-informant agreement measures the correlation between different types of informants. Achenbach, McConaughy, and Howell, (1987) conducted a meta-analysis between the ratings by adult informants and self-reports of children. They found a higher correlation among similar types of informants such as mother and fathers ($r = .60$) than different types of informants, such as teachers and parents ($r = .28$). Correlations were the weakest among self-reports and other informants ($r = .22$). The researchers concluded that the low correlations between informants may indicate, not one is less valid, but each informant may offer different perspectives.

Hwang (2002) adapted the BPI to measure children's self-reports of their temperament by drawing on items from the Children's Behavior Questionnaire (CBQ; Rothbart, 2001). The resulting CBQ-BPI encompassed 12 scales—activity level, anger or frustration, attentional focusing, discomfort, falling reactivity and soothability, fear, high-intensity pleasure, inhibitory control, low-intensity pleasure, sadness, shyness, and smiling and laughter. Hwang interviewed 100

children between the ages of 4 and 7 with the CBQ-BPI. Their mothers also completed the 195-item CBQ, which measured children's temperament along three dimensions: approach, impulsivity, and perceptual sensitivity. The internal consistency reliability of the CBQ-BPI averaged .55. Nine of the 12 scales had reliabilities between .50 and .66. Three scales, however, yielded estimates below .50. The internal consistencies for the CBQ, which were completed by the mothers, were higher, ranging from .67 to .94 with a mean of .77.

To further examine the CBQ-BPI, Hwang (2002) performed a factor analysis. The four higher order dimensions subsumed the smaller subscales—negative affect (anger, sadness, fear), effortful control (attention focusing, inhibitory control), surgency (smile and laughter, activity level, high pleasure), and introversion (shyness, low pleasure, discomfort). The internal consistencies for these broader composite scales ranged from .61 to .78 with a mean of .69, which suggests that the broader concepts of temperament are more reliable and may be more appropriate when measuring temperament with young children.

The same study measured test-retest reliability by administering the interview to a randomly selected group of 15 children 7 to 10 days after the initial interview. The test-retest reliability of the four higher order dimensions was .47 to .93. Test-retest correlations were statistically significant for 11 of the 12 subscales ($r_s = .58$ to $.88$), with most scales yielding estimates over .80. The mean correlation for all 12 scales was .72, indicating adequate stability over a 7- to 10-day period. This finding suggests that children aged 4–7 were able to provide self-

reports that were stable over a short period of time.

Finally, Hwang (2002) examined the level of agreement between children's and mothers' responses. Among the 12 scales, five scales ranged from low to moderate significant correlations ($r_s = .24$ to $.48$). Among the broader concept scales of the child and parent versions, effortful control ($r = .19, p < .05$) and introversion ($r = .29, p < .001$) were statistically associated with each other. These findings were similar to other studies examining concordance among multiple informants (Achenbach et al., 1987; Biscaglia, 2007; Brown et al., 2008; Roth et al., 2004). Thus, these discrepancies may not be just from inaccurate accounts, but may indicate different perspectives.

Measelle et al. (2005) likewise examined the validity of young children's self-reported temperament. In their study, the BPI was adapted to assess the Big Five personality dimensions (extraversion, agreeableness, conscientiousness, neuroticism, and openness). Personality is considered a larger construct than temperament because it also includes traits, skills, habits, thought, values, morals, beliefs and social cognition (Rothbart & Bates, 2006). The sample included ninety-five 5- to 7-year-old children. The internal consistency of the BPI ranged from $.65$ to $.69$. Among children aged 7, the internal consistency alphas for three of the Big Five personality dimensions—extraversion, agreeableness, and conscientiousness—ranged from $.70$ to $.71$. These alpha levels were comparable to the college students' averages of $.70$ to $.73$.

When retested a year later, the stability coefficients averaged .45 for 5- to 6-year-olds and .49 for 6- to 7-year-olds. Once the coefficients were corrected for attenuation, the stability coefficients averaged .85 for 5- to 6-year-olds and .89 for 6- to 7-year olds. Over the 2-year period, the stability estimates decreased to .49.

The results obtained from the children were compared with responses from college students' self-reports, which were completed using the BPI items that were adjusted for age. Although the 2-year interval (.49) revealed lower estimates than the estimates for adults (ranging from .60 to .71), the 1-year period stability estimates were comparable to figures found with adults, supporting the claim that children's reports are relatively stable over one year.

In the same study, Measelle et al. (2005) examined the level of agreement between children's self-reports, parents' reports, and teachers' reports. The responses of children as young as age 5 were significantly correlated with the responses from parents and teachers in the dimensions of extraversion ($r_s = -.23$ to $-.23$ and $.21$ to $.26$) agreeableness ($r_s = -.29$ to $-.39$). Children's reports of conscientiousness and openness were not significantly associated at age 5 but were associated at ages 6 and 7 ($r_s = -.30$, $-.36$ and $.38$, $.45$). The multi-informant analysis added additional support that children as young as 5 years old can provide valid assessments of their personality on the dimensions of extraversion and agreeableness. Moreover, the researchers concluded that children were able to access their own level of neuroticism more accurately than their teachers and parents. This conclusion was supported when the children completed a set of

structured activities at 6.5 and 7 years old in a laboratory while researchers made observations. The observers' assessments were significantly correlated with the children's responses about neuroticism at age 6. Parents' and teachers' reports about neuroticism, however, were low in concordance with the children's reports.

In another study, Bisceglia (2007) developed a measurement tool similar to the BPI to examine the self-perceptions of 3- to 6-year-olds. The Preschool Puppet Interview (PPI) consists of four scales: conduct (aggressive-hostile behavior), emotional (depressive, anxious feelings), peer-problem (ability to establish friendships versus social isolation), and prosocial (empathy, sympathy). Thirty-one children were interviewed, and their responses were compared with their parents and teachers who completed an adapted version of the Strength and Difficulties Questionnaire (Goodman & Scott, 1999), which measured conduct and peer problems, emotional symptoms, inattention and hyperactivity, and prosocial behavior.

All four scales of the PPI showed internal consistency reliability ranging from .71 to .85. One week after the interview was conducted, each participant was retested. Test-retest reliability for the three scales—conduct, prosocial, and emotional—were significantly correlated, $r_s = .68, .68, .64$ ($p < .001$), respectively. The peer-problem scale demonstrated modest correlations ($r = .38, p < .05$). These results suggest that children as young as 3- to 6-year-old can provide stable self-reports. An examination of child–parent and child–teacher concordance, however, revealed no significant associations, although the levels of

agreement between the reports of children and parents and children and teachers increased with age.

Similar to the BPI and PPI, Eder (1990) conducted a cross-sectional study that utilized the Multidimensional Personality Questionnaire (Tellegen, 1982; Tellegen & Waller, 2008) to measure the psychological self-understanding of 180 3.5-, 5.5-, and 7.5-year-old children. The questionnaire measured the following 10 dimensions: achievement, aggression, alienation, control, harm avoidance, social closeness, social potency, stress reaction, traditionalism, and well-being (adapted from Tellegen, 1982). To obtain the children's perceptions of themselves, two puppets interviewed the participants. The puppets made opposing statements, and the child had to choose which puppet they were most like. The procedure differed from the BPI by implementing a forced-task recognition system, in which the child had to associate with one puppet or the other (as opposed to the BPI, where the children were also able to point or respond nonverbally and were scored on a 7-point scale). An initial examination of the measure's internal consistency revealed low inter-item correlations and poor average item-total correlations for the dimension of control; consequently, control was not included in subsequent analyses. The mean internal consistency alpha coefficients for 3.5-, 5.5-, and 7.5-year-olds were .47, .52, and .53, respectively, for the remaining nine dimensions. After 1 month, reports were somewhat stable, especially among the older children. All dimensions except achievement showed 1-month test-retest stability for the 7.5-year-old children ($r_s = .48$ to $.72$, $p < .01$, $.001$). The stability

coefficients for the 5.5-year-olds were in the moderate to strong range for six of the dimensions: aggression, harm avoidance, social closeness, social potency, traditionalism, and well-being ($r_s = .35$ to $.81$). Children who were 3.5 years old displayed stable responses for achievement, aggression, alienation, and stress reaction ($r_s = .30$ to $.51$).

Eder (1990) also conducted a factor analysis to obtain higher order factors, which examined personality in broader, more general constructs. The higher order dimensions were internally consistent for all three age groups: 3.5-year-olds, 5.5-year-olds, and 7.5-year-olds, ($\alpha = .75, .78, .78$, respectively). Children's self-concept was also stable over a 1-month period: average test-retest stabilities for all three groups were $.45, .60$, and $.65$.

Brown et al. (2008) extended the work of Eder (1990) and administered the Children's Self-View Questionnaire (CSVQ; Eder, 1990) to measure the self-views of social, emotional, and personality characteristics of 112 five-year-old children and compared their views with their mothers' perceptions. The CSVQ included 41 items encompassing nine scales (achievement, aggression, alienation, harm-avoidance, social closeness, social potency, stress reaction, traditionalism, and well-being), which were later incorporated into broader scales of timidity (eight items; $\alpha = .68$), agreeableness (14 items; $\alpha = .72$), and negative affect (nine items; $\alpha = .72$). Mothers completed the California Child Q-Set (CCQ; Block & Block, 1980) by sorting its 100 cards into nine piles ranging from 1 (*most like my child*) to 9 (*least like my child*). Associations between maternal reports and

children's self-reports of personality were small to moderate in magnitude, although they completed different instruments to measure temperament. Children who self-reported high in the timidity group were rated by their mothers as high in neuroticism ($r = .26, p < .01$) and low in extraversion ($r = -.33, p < .001$) and in being open to new experiences ($r = -.26, p < .01$). Children scoring high in agreeableness also scored high in agreeableness by their mothers ($r = .38, p < .001$). Children who rated themselves high in negative affect were reported by their mothers to be high in neuroticism ($r = .30, p < .001$) and low in conscientiousness ($r = -.26, p < .01$).

In the final study reviewed here, Roth et al. (2004) conducted two interrelated studies on temperament measuring the dimensions of social desirability, sociability, shyness, emotionality, and soothability. The measurement was modeled after the Colorado Childhood Temperament Inventory (CCTI). In the first study, children were interviewed using puppets, and their parents and teachers completed the CCTI. The Puppet Interviews (PI) consisting of 24 forced-choice statements were conducted with 79 four- and five-year-old children. The internal consistency reliabilities of the dimensions ranged from .47 to .64. Test-retest reliability with a subsample of 10 children was measured a week after the puppet interviews. Test-retest reliability was high for soothability ($r = .86$) and moderate for emotionality ($r = .59$) but low for sociability ($r = .30$) and shyness ($r = .31$). The level of agreement between teacher-child and parent-child dyads was low ($r = .00$ to $.39$).

The measure was adapted in a second study so that the adult informants were asked identical questions to the PI; which was called the Puppet Interview-Teacher/Parent. The goal of this study was to assess whether parallel forms would result in greater concordance. The sample included 55 children and their parents and teachers. The Puppet Interview-Revised contained 36 items, which included a new shyness scale as well as a component measuring social desirability. The alphas, similar to the PI in Study 1, ranged from .43 to .60.

Test-retest reliabilities for the children's self-reports in Study 2 showed similar patterns to those in Study 1. There was high reliability for soothability ($r = .84, p < .001$) and social desirability ($r = .80, p < .01$) and moderate reliability for emotionality ($r = .55$), shyness was low ($r = .29$), and sociability had a negative reliability coefficient ($r = -.33$). There was, however, little to no relationship between the child and adult informants. Parent and child reports of soothability showed a moderate correlation for girls ($r = .48, p < .05$) but no significant correlation for boys. Using the Puppet-Interview-Teacher/Parent to measure the reliability between parents' and teachers' reports of children's characteristics, the concordance estimates were moderate for shyness for both boys and girls ($rs = .44$ and $.45, p < .01$) and not significant for sociability ($rs = .33$ and $.14$). There was a moderate relationship for emotionality ($r = .47, p < .05$) among the girls. Comparing responses between the parents and teachers using the CCTI, there was a low to moderate correlation for shyness ($rs = .55, p < .05$ and $.64, p < .01$). Given the results of the two studies, Roth et al. (2004) concluded that more

research needed to be conducted on puppet interviews to assess whether this method can collect viable and accurate information from young children.

The agreement among adults' and children's responses in the previously discussed studies ranged from none to a moderate level ($r_s = .00$ to $.48$; Bisceglia, 2007; Brown et al., 2008; Hwang, 2002; Measelle et al., 2005; Roth et al., 2004). A meta-analysis of the concordance among teachers' and parents' reports, parents' and children's self-reports, and teachers' and children's self-reports of children's emotional and behavioral problems found weak coefficients: $.27$, $.25$, and $.20$, respectively (Achenbach et al., 1987).

Considering all of these studies, the evidence supports a trend in the accuracy of young children's assessments of their own temperaments. More research is needed to strengthen our confidence in this regard. Prior to the present study, the reliability of children's self-reports of temperament using the School-Age Temperament Inventory (SATI) had not been conducted. Assessing the validity of the *INSIGHTS* puppet interview is warranted because the puppets are an essential part of the children's intervention.

The *INSIGHTS* Program

INSIGHTS is a 10-week, comprehensive, temperament-based intervention that focuses on enhancing emotional, social, and behavioral development in children. Parents and teachers meet separately for 2 hours once a week over the course of 10 weeks. This program teaches them a framework for recognizing and

appreciating the individual differences in children. Temperament profiles derived for each child from the parent and teacher versions of the SATI survey are explained during the sessions. The teachers and parents are also taught temperament-based strategies to foster the behavioral competence of the children and reduce their behavior problems.

INSIGHTS educational theatre children's program is a weekly classroom session conducted during one class period for 10 weeks. This intervention program addressed temperament content similar to the adult sessions. During the first four sessions, the children are introduced to temperament through four puppets who represent common temperament profiles found in children: Fredrico the Friendly, Coretta the Cautious, Hilary the Hard Worker, and Gregory the Grumpy (McClowry, 2002). These puppets represent common typologies that have combinations of salient dimensions of temperament. The puppets' personalities are portrayed through a facilitator, who manipulates the puppets. A DVD that contains four short vignettes about each puppet's day is shown during the classroom sessions. The following is an example of a puppet's typical day in the classroom:

I walked in the classroom. As soon as the children saw me (or maybe more accurately, as soon as they see the puppet bag), they squealed with excitement

*"Who do we meet today?" they asked.
"Are we going to meet Gregory?"*

The first day, the children met Fredrico the Friendly. He was wiggling around in the bag because he was excited about meeting

the children. As I reached in the bag, Fredico jumped out and immediately started introducing himself to all the children.

On day two, the children met Coretta the Cautious. She had a very different entrance. She would not come out unless the children sat incredibly still. Then she peaked out to make sure it was safe. With my gentle coaxing, she appeared slowly, but stayed by my side throughout the session.

When it was Hilary the Hard Worker's turn to meet the children, she also took some coaxing to come out, but it was for a different reason. She preferred to stay in her bag because she wanted to finish her math homework.

Now, on day four, it was Gregory the Grumpy's turn to meet the class. He also had a unique entrance.

"Gregory, come on out. The class is excited to meet you!" I said cheerfully as I reached into the puppet bag.

"I don't want to come out!" hollered Gregory as the bag moved around.

I looked at the class; the students giggled nervously.

"Gregory, we talked about this last night. The class has already met Fredrico, Coretta and Hilary. Now it's your turn."

Big sigh. "Okay."

Gregory popped out of the bag, showing a slight frown. The children squealed with excitement.

*"Hi. I'm Gregory and Iiiii'mmmmm **GRUMPY!!**"*

The children continued to giggle. Because Gregory is high in activity, it was challenging for Gregory to sit still. Instead he was constantly moving around.

The workshop continued and we watched a video about Gregory's day. Gregory asked the class what was challenging and easy for him. The children and I compared Gregory's temperament to the other puppets.

The remaining six sessions focuses on solving common daily dilemmas with the puppets. The DVD shows the puppets having different dilemmas. The puppets, manipulated by the facilitator, ask the students to help to solve the dilemmas. The puppets also ask the children how the puppet might be feeling. The puppets then invite the children to take the facilitator's place in using the puppets. The following is Gregory's dilemma that the children help him solve:

Gregory told Fredrico that he was upset because Michael said he didn't want to be Gregory's friend. Gregory asked Fredrico, "What should I do?"

Gregory/I asked the class, "Do you see my dilemma?"

The class responded, "Michael doesn't want to be his friend."

I asked, "How does Gregory feel?"

"He's sad." "He's angry." "His stomach may hurt."

I asked for two volunteers to be Gregory and Fredrico.

I instructed Gregory and Fredrico to reenact the scene. The class whispered, "1, 2, 3, action."

"Fredrico, Michael said that he doesn't want to be my friend!"

If Fredrico/child didn't know how to respond, or if Fredrico/child seemed "stuck," I asked the class, "What should Fredrico say to Gregory?"

"He should ask, 'Why doesn't Michael want to be your friend?'"

Fredrico/child agreed and asked Gregory.

I looked at Gregory. He was silent. I asked Gregory, "Do you know why Michael said that?"

Gregory shook his head.

A student responded, "Fredrico should tell Gregory to ask Michael why doesn't he want to be his friend."

Fredrico/child told Gregory.

I told the class that I am Michael and brought out another Fredrico puppet.

Gregory asked Michael, "Michael, why don't you want to be my friend?"

"Class, what does Michael say?" Students give some suggestions.

Michael responded to Gregory, "You didn't want to play with me during recess."

I asked the class, "How do you think Michael feels? Why do you think that Michael doesn't want to be Gregory's friend?"

"His feelings were hurt." "He was sad."

Michael puppet agreed with what the class said.

I asked the class, "How should Gregory respond?"

One student said, "Maybe Gregory promised to play with Fredrico during recess. That's why he couldn't play with Michael."

I asked Gregory, "Is that what happened, Gregory?"

Gregory nodded.

I asked the class, "How can they solve this dilemma?"

The class gave Gregory suggestions. "Next time, Gregory can have Michael join them at recess." "Or Gregory can tell Michael that he promised that he'd play with Fredrico during recess, but he can play with Michael after lunch."

"I think they both are very good suggestions. Gregory, which suggestion do you want to use?"

Gregory picked the latter.

“Now let’s all watch Gregory solve the dilemma. Let’s whisper, ‘1, 2, 3 action.’”

“1, 2, 3 action.”

Gregory went up to Michael and explained, “I’m sorry that I didn’t play with you during recess, but I had promised Fredrico that I’d play with him. I still want to be your friend. Do you want to play with me during lunch?”

Michael agreed.

As the students become more familiar with the process, they begin using the puppets to solve their own dilemmas. The role of the student transfers from acting like the puppet and solving the puppets’ dilemmas to choosing a puppet that is most like them and using the puppets as a projective method to solve their own dilemmas. After spending 10 weeks getting to know the temperaments of the four puppets, interacting with them, and solving dilemmas using the puppet that is most like them, children are asked which puppet they are most like. This innovative procedure differs from the puppet interviews and the projective methods previously discussed because the children have multiple opportunities to interact with the puppets prior to being interviewed regarding their self-perception of their own temperament.

How the Puppets Came to Be

The four puppets—Fredrico the Friendly, Coretta the Cautious, Hilary the Hard Worker, and Gregory the Grumpy—were derived from the SATI which is a parent report (See Table 1; McClowry, 1995). The SATI is comprised of 38

Likert-type items measuring four temperament dimensions: activity (large motor activity), withdrawal (the child's initial response to new people and situations), negative reactivity (intensity and frequency with which the child expresses negative affect), and task persistence (the degree of self-direction that a child exhibits in completing tasks and other responsibilities) as defined by McClowry (1995). A child's temperament can be described as being high or low on each of the four dimensions.

Another component of temperament is that the various temperament dimensions do not act in isolation but are often associated with each other. Four common temperament profiles were derived by McClowry (2002) based on a principal factor analysis of the dimensions of the SATI: high maintenance, slow to warm up, industrious, and social or eager to please. The first profile, high maintenance, consisted of high activity (.72), high negative reactivity (.67), and low task persistence (-.65). The second temperament profile, cautious or slow to warm up, included high withdrawal (.51) and high negative reactivity (.43). These two factors were reversed to derive mirror-image temperament profiles. Children with high task persistence, low activity, and low negative reactivity were labeled industrious. Children low in withdrawal and low in negative reactivity were labeled social or eager to try (see Table 1). Significant gender differences were found in both the difficult and easy temperaments. Boys were more likely to be classified as having high-maintenance temperaments ($\chi^2 = 6.5, df = 1, p < .05$), and girls were more likely to be described as being industrious and eager to try





($\chi^2 = 4.17$, $df = 1$, $p < .05$).

The results of the factor analyses were used to design puppets that matched the statistical analyses (McClowry, 2002b). The puppet, Gregory the Grumpy was intend to capture the high–maintenance profile. Coretta the Cautious was designed to represent the cautious or slow-to-warm-up temperament. Then, the two higher-order factors were reversed to derive mirror-image temperament profiles. The puppet representing high task persistence, low activity, and low negative reactivity was called Hilary the Hard Worker. Fredrico the Friendly represented the social or eager-to-try profile.

Once names and genders were assigned, bright, symbolic colors were chosen for the puppets. Green on a traffic light signifies “go,” and therefore was selected for Fredrico the Friendly. Coretta the Cautious is yellow to symbolize slowing down and being cautious. Orange was selected for Hilary the Hard Worker to symbolize her industriousness because of the association with cones used in road construction, a common and public display of hard work. Purple was chosen for Gregory the Grumpy to signify negative emotions (for puppet temperament profiles and graphics, see Appendix B).

Table 1

Temperament Dimensions Salient for Each Puppet Profile

Puppet	Level	Negative reactivity	Task persistence	Withdrawal	Activity
Gregory the Grumpy 	High	X			X
	Low		X		
Hilary the Hard Worker 	High		X		
	Low	X			X
Fredrico the Friendly 	High				
	Low	X		X	
Coretta the Cautious 	High	X		X	
	Low				

Summary

This study examines data from children's participation in a drama activity that encouraged them to explore their temperaments and solve dilemmas with their classmates. Literature on the use of dramatic play, role-play, and therapy through the medium of puppetry was presented to provide background in these areas. Projective methods were also discussed in the literature review because the *INSIGHTS* program uses puppetry to allow children to project their thoughts and actions. This section also addressed puppets as a method for child self-reports on temperament. The *INSIGHTS* self-reporting method differs from the previously described puppet interviews because the aforementioned studies utilized puppets solely as a vehicle for data collection. In current study, children became familiar with different temperaments through puppets over a 10-week period and used these archetypes as vehicles for both projection and self-reporting.

CHAPTER III

METHODOLOGY

This study analyzed data collected from three federally funded research studies (1994-2009) that tested the efficacy of *INSIGHTS*. The purpose of this secondary analysis was to examine the validity of children's self-reports of their temperaments after participating in an educational theatre puppet program. In the following sections, I describe the research methods of the study, including the rationale for using mixed methods, the participants, the procedures, and the researcher's stance.

Mixed Methods: Rationale

This study combined both quantitative and qualitative methods. While researching the rationale for using both approaches, I came across Creswell's (2002) interpretation of matching a research problem with an approach. He stated that quantitative research serves to identify "factors that influence an outcome, the utility of an intervention, or understanding the best predictors of outcomes . . . or test a theory or explanation" (pp. 21-23). On the other hand, qualitative analysis is exploratory and is used for concepts where a deeper understanding is needed. In this study, both approaches were appropriate.

Creswell (2002) also acknowledged that the trend is to turn away from adversarial positions of qualitative versus quantitative research and that research should “lie somewhere on a continuum between the two” (p. 4). One mixed-method strategy recommended by Creswell is called concurrent procedures, in which the researcher implements both qualitative and quantitative methods simultaneously and integrates the information in the findings. In this proposed study, I employed concurrent procedures by combining both text and numeric information for analysis and interpretation.

Participants

Data for this secondary analysis were examined from three prevention trials of *INSIGHTS*. The sample included 284 responses from children, 271 surveys from their parents, and 277 reports from their teachers. The children were from 19 inner-city schools in a northeastern city.

The qualitative analysis included data from 209 children who participated in the second and third prevention trials. Although children from the first prevention trial were asked to choose a puppet that was most like them, they were not asked to provide a reason why. As a result, qualitative analysis was limited to 209 responses from the children participating in the last two prevention trials, whereas the quantitative analysis included 284 children selections from all three trials.

The demographics of the participants are summarized in Table 2. As

shown, the children ranged from 5 to 9 years of age with a mean age of 6.22 years ($SD = .95$). Almost equal numbers of boys and girls participated in the study (146 boys and 138 girls). Of the 284 child participants, 38.0% were in kindergarten ($n = 108$), 39.8% in first grade ($n = 113$), and 22.2% in second grade ($n = 63$). A majority of the children (85%) qualified for free lunch.

The children's primary parental caregivers included mothers (82.9%; $n = 223$), fathers (8.2%; $n = 22$), and adults who identified themselves as parental figures, such as grandparents, aunts, and foster or adoptive parents (8.9%; $n = 24$). The mean age of the parents was 35.16 ($SD = 9.38$; age range: 20 to 68 years). The race of the parents included African-Americans (69.2%; $n = 189$), Hispanic or Latinos (28.2%; $n = 77$), White (1.1%; $n = 3$), and other, which encompassed participants that were mixed-race or that decline to answer (1.1%, $n = 3$). The education level of the parents was as follows: 28.3% of the participants had less than a high school diploma ($n = 77$), 31.3% had a high school diploma or graduate equivalency degree ($n = 85$), and 40.4% had at least some college credits ($n = 110$). Over half of the parents (54.7%) indicated that they were employed outside the home ($n = 156$).

The 108 teacher participants included 33.3% kindergarten ($n = 36$), 43.5% first-grade ($n = 47$), and 23.1% second-grade teachers ($n = 25$). Almost all of the teachers were female (96.3%; $n = 104$), and four (3.7%) were male. The teachers' report of their racial backgrounds consisted of African American (48.5%; $n = 50$), White (30.1%; $n = 31$), Hispanic or Latino (13.6%; $n = 14$), Asian or Asian

American (3.9%; $n = 4$), and other (3.9%; $n = 4$).

Table 2

Participant Demographics

Characteristic	Parent		Child		Teacher	
<i>N</i>	271		284		108 (19 Schools)	
Age	20 to 68		5 to 9		--	--
<i>M (SD)</i>	35.16 (9.38)		6.22 (.95)			
	%	(<i>n</i>)	%	(<i>n</i>)	%	(<i>n</i>)
Gender						
Male	--	--	51.4%	(146)	3.7%	(4)
Female	--	--	48.6%	(138)	96.3%	(104)
Grade						
Kindergarten	--	--	38.0%	(108)	33.3%	(36)
First	--	--	39.8%	(113)	43.5%	(47)
Second	--	--	22.2%	(63)	23.1%	(25)
Race						
African-American	69.2%	(189)	--	--	48.5%	(50)
Hispanic or Latino	28.2%	(77)	--	--	13.6%	(14)
(table continues)						

Table 2 (continued)

White	1.1%	(3)	--	--	30.1%	(31)
Asian or Asian	--	--	--	--	3.9%	(4)

American						
Other	1.1%	(3)	--	--	3.9%	(4)
Parent						
Mother	82.9%	(223)	--	--	--	--
Father	8.2%	(22)	--	--	--	--
Other	8.9%	(24)	--	--	--	--
Education						
< HS diploma	28.3%	(77)	--	--	--	--
= HS diploma or GED	31.3%	(85)	--	--	--	--
Some college Credits	40.4%	(110)	--	--	--	--
Employment Outside the Home	54.7%	(156)	--	--	--	--

Procedure

The following section addresses the recruitment and consent of the participants, the study's measures, and the data-collection procedures.

Recruitment and Consent

Elementary schools from a large urban city were recruited to participate in the program. The criteria for participation were that (a) the children attended a regular classroom in either kindergarten, first, or second grade; (b) the child's parent was able to understand English; and (c) the child, the child's teacher, and the parent agreed to participate in the study.

Prior to recruiting participants at each school, the school-based coordinator sought agreement from the schools' principals. Then, the coordinator met with teachers from kindergarten, first-grade, and second-grade classrooms and began recruiting them to enroll in the program. Once the teachers agreed and signed a consent form, the *INSIGHTS* team recruited the children's parents. Parents signed consent forms and children gave verbal assent (see Appendix C).

Measures

Data were collected from three sources: parents, teachers, and children. Parents completed the SATI, which was developed as a measure to assess child temperament (see Appendix D; McClowry, 1995). The SATI consisted of 38 Likert-type items. Teachers filled out a parallel paper-pencil survey, the TSATI,

which consisted of 33 Likert-type items (see Appendix E; Lyons-Thomas & McClowry, 2009).

For both tools, each adult informant was asked to rate his or her child, with possible responses ranging from 1 (*never*) to 5 (*always*) on each item. The tools measured four temperament dimensions: activity, withdrawal, negative reactivity, and task persistence. Higher scores indicated that the child was high in activity, had a tendency to withdraw in new situations, had high negative reactivity, and demonstrated persistence when engaged in a task.

The initial development of the SATI consisted of 435 mothers and 228 of their spouses (McClowry, 1995). The sample was drawn from three New England school districts. The majority of the mothers reported their children as Caucasian (89%) and categorized themselves as middle class. Cronbach's alphas ranged from .85 to .90. Correlations between reports from mothers and fathers ranged from .51 to .68. Test-retest reliability ranged from .80 to .89. The reliability and validity of the TSATI were supported in a recent study with a nationwide sample of 79 elementary-school teachers (McClowry & Lyons-Thomas, 2009). The alphas for the tool ranged from .82 to .95. In the current study, the Cronbach's alphas ranged from .72 to .89 for parents and .80 to .97 for teachers, as shown in Table 3. The means and standard deviations are also shown in the table.

The children were interviewed with the *INSIGHTS* Puppet Interview to obtain their self-reports of temperament. Specifically, a data collector asked the children the following question: "Some children tell me that they think they are

like one of the puppets. If you could pick one puppet—and only one puppet—who you are most like, which one would you choose?” As a follow-up to this question, the children were asked, “Why do you think that you are like [name of puppet]?”

Table 3

Internal Consistency of Temperament Dimension by TSATI and SATI

Temperament dimension	Items	α	M	(SD)
Negative reactivity				
TSATI	11	.95	27.06	(10.85)
SATI	12	.89	34.97	(9.77)
Task persistence				
TSATI	9	.97	29.53	(9.26)
SATI	11	.85	38.63	(8.45)
Activity				
TSATI	5	.93	11.43	(5.40)
SATI	6	.75	16.50	(4.83)
Withdrawal				
TSATI	8	.80	19.51	(4.70)
SATI	9	.72	23.13	(6.23)

Data Collection

The parents completed the SATI, and the teachers filled out the TSATI to assess the children's temperament prior to the start of the program. Children were interviewed with the Puppet Interview guide after the *INSIGHTS* program was completed (Appendix F). The responses were entered into a database using the Statistical Package for the Social Sciences (SPSS, version 18.0).

Data Preparation for Research Question 1

Creswell (2002) suggested first obtaining “a sense of the whole” by carefully reading through all the data and taking notes on the ideas and themes that come to mind. To gain a better sense of the data, I initially read through the interview responses several times. Most of the interviews were one sentence long, and some were only a couple of words. At first glance, I was concerned that there was not going to be enough data to interpret. The children's responses seemed basic and ordinary, and I thought, “How am I going to extract meaning from this?” Bogdan and Biklen (2003) addressed this anxiety, suggesting that researchers break down the process in stages. Once this was accomplished, themes from the data emerged.

After my initial review of the data, I began the process of coding, sorting, binning, and winnowing (Ely, 1997; Wolcott, 1990). Wolcott (1990) suggested beginning with a few overarching categories to provide a framework that facilitated sorting through the data. Through the technique of binning, I began an

initial sorting of the data by reading through the interviews, creating broad categories. In doing so, I looked for relationships, patterns, and themes. Through the process of coding and binning, certain categories and relationships emerged.

Finally, I interpreted these findings after exploring a number of qualitative research software programs. Given the interviews primarily ranged from a few words to a sentence, I decided to interpret the data the “old-fashioned” way suggested by Wolcott (1990) and Ely (1991) and used index cards. I printed out each interview on a colored index card that corresponded to the puppet that they had selected. The responses of all the children who chose Fredrico were taped on green index cards, Coretta on yellow, Gregory on purple, and Hilary on pink. I made 30 to 40 passes through the cards to sort them into piles according to different coding categories: words, phrases, or events that stood out (Bogdan & Biklen, 2003). I also created a Microsoft Excel file to organize the data for interpretation. The document recorded how I coded and sorted the interviews. I later incorporated the responses in Predictive Analytics Software (PASW; 2009), otherwise known as SPSS. Using the suggestion of visual devices from Bogdan and Biklen (2003) for qualitative research, tables are included to present the findings.

Data Preparation for Research Question 2

The data from the child, parental, and teacher reports were prepared to compare the level of agreement between the informants. The children’s responses

were organized according to the puppet they selected. To categorize the children's selection into different levels of the temperament dimensions, their responses were classified as being equivalent to the salient dimensions of the selected puppet's temperament profile. For instance, all of the children who selected Gregory were categorized as being high in negative reactivity, low in task persistence, and high in activity. This process was repeated for the remaining three puppet profiles (see Table 1).

Scores from the parental and teacher reports were also categorized as high, moderate, and low by each temperament dimension. High and low cutoff points for the four temperament dimensions were calculated from the SATI and TSATI by dividing the total scores for each temperament dimension into thirds based on the standardization of the SATI and TSATI (McClowry, 2003; McClowry & Lyons-Thomas, 2009). The top third of the dimension scores indicated that the child was high in that dimension, and the bottom third represented a low level (see Table 4 for high and low cutoffs). Based on these cutoff points, the scores derived from parental and teacher reports were calculated as high, moderate, and low for each of the four dimensions.

Table 4

High- and Low-Profile Scores for each Temperament Dimension

Temperament Dimension	SATI parental reports			TSATI teacher reports		
	High	Low	<i>M (SD)</i>	High	Low	<i>M (SD)</i>
Negative reactivity	3.42	2.67	3.09 (.76)	3.10	2.09	2.57 (1.26)
Task persistence	3.91	3.18	3.50 (.78)	4.01	2.88	3.33 (1.20)
Withdrawal	2.78	2.22	2.52 (.72)	3.26	2.38	2.88 (1.15)
Activity	3.00	2.33	2.71 (.81)	2.81	1.80	2.48 (1.23)

Researcher's Stance

Over the last 4 years, I have been a member of the *INSIGHTS* team primarily as a facilitator. I also have collected data from parents, teachers, and children. As described in the literature review section, I have seen firsthand how magically puppets can perform in the classroom. From an anecdotal perspective, I have witnessed the impact that drama can have with children through puppetry. I take the approach of Freire (2003), learning as much from the children as they do from me. I believe that children have a greater understanding of themselves than many researchers give them credit for. My relationships with the participating children and the program have influenced how I approached the study data. When interpreting the qualitative data, I have attempted to maintain transparency, understanding and articulating how my biases shaped the way I approached and

interpreted the data. In this regard, Creswell's position (2002) can be used to accurately describe my role in the present study:

Researchers recognize that their own background shapes their interpretation, and they "position themselves" in the research to acknowledge how their interpretation flows from their own personal, cultural, and historical experiences. The researcher's intent, then, is to make sense (or interpret) the meaning others have about the world (p. 8).

In order to make sense of the meaning, my experience in the public health field also informs my lens. "What's behind the numbers?" is a question I have always asked. Prior to my doctoral studies, I worked for an Asian American organization dedicated to the issues and needs of Asian American women and girls. During that time, the Asian American teen birth rate was among the lowest documented among all ethnic groups. When combined with all Asian American ethnic groups, the high birth rates for separate Asian American ethnic groups were not identified. Analyzing the different ethnic groups separately, however, revealed that one group, Laotian girls, had the highest teen birth rate among not only Asian Americans but also among Caucasian or non-Hispanic Whites, Hispanic or Latinos, and Black or African American girls.

Recognizing the high birthrate among Laotian girls, the organization decided to conduct focus groups with the girls to discover the story behind the numbers. An outsider might automatically assume these young girls were making an "unhealthy" decision by having a baby. But one of the outcomes from the focus groups revealed another perspective. The girls lived in an environment riddled with gang activity. They were pressured by their peers to affiliate with a

gang. The only option some of these girls saw was to become pregnant, which provided them with a “valid” excuse not to be involved in gang activity. Given the options that these girls faced, from their perspective, they *were* choosing the healthier option. This conclusion would never have arisen from a survey. There would not have been a box to check labeled, “pressured to affiliate with gangs.” Instead, if a questionnaire had been developed, the items would have included “contraceptives not available,” “lack of teen clinics in the area,” or “not enough sex education” as reasons why girls had babies at such a young age. Had this organization not conducted focus groups, they may have tried to solve the problem by distributing condoms, fighting for more sex education in the schools, or coordinating to have a teen clinic opened. Solely going by the numbers would have given an inaccurate picture of the experiences of these young girls. As a result of the focus groups, we ran a program for Laotian girls that offered them more options to avoid gang activity, such as becoming involved in community activism, environmental justice, local and larger political processes, and social justice. The story behind the numbers painted a much different and more accurate picture than the numbers alone.

This experience led me to public health school, ready to learn more about working with communities around public health issues. To my disappointment, when I tried to describe my experiences working in an Asian American community, inner-city schools, juvenile hall, and teen clinics, all I heard was, “But was it statistically significant?” “What’s the empirical evidence behind what

you are saying?” and “That is purely anecdotal.” I earned a Master’s in Health Science, but the entire time I was in public health school, I kept asking, “But what about the story behind the numbers? What about the person behind the numbers?” I could not leave the quantitative numbers fast enough. Instead I was relieved when I arrived at NYU and realized how supportive the Educational Theatre program was of conducting qualitative research.

Today, I find myself in an ironic situation. I proposed a mixed methods research study for my dissertation. Regardless of my struggles trying to validate qualitative research in an environment surrounded by quantitative researchers, public health school changed me. Had I not obtained a Master’s in Health Science, I never would have ventured down this path. Now I want both—the numbers and the story that informs them. All of these experiences, in particular my background in public health and the fact that I have a comprehensive understanding of the *INSIGHTS* program, formed the lenses through which I interpreted the children’s responses in this study.

CHAPTER IV

RESULTS

Overview

The purpose of this study was to examine the validity of children's self-reports of their temperaments after participating in an educational theatre puppet program. Children in the study were asked to select a puppet that was most like them following their participation in a 10-week educational theatre puppet program called *INSIGHTS*. The children's selections were interpreted quantitatively and qualitatively to provide a greater understanding of their responses. To further evaluate the validity of the children's self-reports, a quantitative analysis of their responses was compared to the responses from their parents and teachers.

This chapter reports the findings of the two research questions.

1. How do children identify their temperament following a 10-week educational theatre program using puppets that represent four common temperament profiles?
2. What is the level of agreement between children's self-reported temperament and reports provided by their parents and teachers?

Quantitative Analysis for Research Question 1

To address the first research question: “How do children identify their temperament following a 10-week educational theatre program using puppets that represent four common temperament profiles?” I first calculated frequencies based on the children’s responses. As summarized in Table 5, 14% of children chose Gregory the Grumpy as the puppet that was most like them ($n = 39$). Hilary the Hard Worker was selected by 27% of the children ($n = 77$). Forty-two percent of the children chose Fredrico the Friendly ($n = 119$), and 16% of children reported that they were like Coretta the Cautious ($n = 46$).

Percentages were calculated to report the number of times each puppet was selected by child gender (see Table 5). The boys disproportionately selected Gregory ($n = 32$; 82%) and Fredrico ($n = 92$; 77%), whereas only 18% and 23% of girls, respectively, selected the same puppets ($n = 7$ and $n = 27$). The girls disproportionately selected Hilary ($n = 63$; 82%) and Coretta ($n = 40$; 87%), in comparison to the boys ($n = 14$; 18% and $n = 6$; 13%). A one-sample chi-square test was conducted to assess whether children were significantly more likely to choose a same-gendered puppet. The results were significant for both genders, $\chi^2(1, N = 144) = 75.11, p < .001$ for boys and $\chi^2(1, N = 137) = 34.75, p < .001$ for girls.

Parents’ and teachers’ responses were also analyzed by puppet profile and gender. Responses from the SATI and TSATI were calculated categorizing children who matched the four puppet profiles. For Gregory’s temperament

profile, the adult responses reflected gender patterns similar to the children's responses. The majority of children who were identified by their parents and teachers as matching Gregory's profile were boys (62% and 77%, respectively). The gender ratio for the other three profiles did not mirror the children's own selection of puppet profiles. Parents scored more boys as Hilary's profile (53%), whereas teachers rated more girls this way (64%). The adult responses for children matching Fredrico's and Coretta's profiles were contrary to the children's own puppet selections. Specifically, parents and teachers identified slightly more girls than boys as matching Fredrico (55% of parents and 55% of teachers). Both parents and teachers identified slightly more boys than girls as matching Coretta's profile (53% of parents and 60% of teachers).

Qualitative Findings for Research Question 1

Children's Explanations for the Selected Puppet

I asked myself, "What is the meaning behind the children's puppet selections?" Quantitative analysis provides only one piece of the picture. The purpose for this portion of the analysis was to gain further insight into children's understanding about the puppets' temperament and, through this medium, their perceptions about their own temperaments. Exploring the children's responses also allowed for an assessment of the validity of the interview instrument. A qualitative approach was employed to examine the children's responses to the open-ended question, "Why do you think you are like [name of selected puppet]?"

Table 5

Children's and Adults' Selection of the Puppet that is Most Like Them: Overall and by Gender

Puppet		Child		Parent		Teacher	
		Total <i>n</i>	Within puppet %	Total <i>n</i>	Within puppet %	Total <i>n</i>	Within puppet %
Gregory	Male	32	82%	21	62%	26	77%
	Female	7	18%	13	38%	8	23%
	Total	39	100%	34	100%	34	100%
Hilary	Male	14	18%	18	53%	15	36%
	Female	63	82%	16	47%	27	64%
	Total	77	100%	34	100%	42	100%
Fredrico	Male	92	77%	18	45%	23	45%
	Female	27	23%	22	55%	28	55%
	Total	119	100%	40	100%	51	100%
Coretta	Male	6	13%	18	53%	9	60%
	Female	40	87%	16	47%	6	40%
	Total	46	100%	34	100%	15	100%

In the literature review section, I addressed the limitations of working with such a young population. Given these parameters, the length and depth of the interview responses were limited. The short interview was, however, offset by the fact that I interpreted data from 284 interviews.

Interpretations

The following categories were derived from interpreting the children's responses:

1. "negative" versus "positive" puppets;
2. use of the words *sometimes*, *always*, and *every time*;
3. showing altruism;
4. use of vignettes and dilemmas from the puppet sessions as examples;
5. saying, "I like to . . .;"
6. referring to the puppet as a real person;
7. use of the word *I*, *puppet*, or both as the subject of a sentence;
8. referencing the future;
9. choosing more than one puppet;
10. words used to describe why they were most like the selected puppet;
11. use of program-curriculum vocabulary words;
12. temperament dimensions;
13. internal versus external behavioral states;

14. responses unique to the selected puppet;
15. complex responses; and
16. potential data leads that did not ultimately show any patterns.

“Negative” Versus “Positive” Puppets

An interesting finding included the number of times the children referenced “positive” versus “negative” attributes when asked why they were like the selected puppet. “Easy” and “challenging” were the program-curriculum vocabulary words used throughout the program. Although each of the puppets’ stories involved both easy and challenging temperament traits and were discussed with the children, after coding the responses, very pronounced patterns emerged. An overwhelming majority of children selecting Gregory used more negatively associated reasons why they were like Gregory such as—“grumpy,” “mean,” “can’t control myself,” and “don’t want to do . . .” Children selecting Coretta also referred to less positive attributes—“don’t talk,” “shy,” and “stays close to mom.” On the other hand, children who chose Hilary gave more positive reasons such as “behaves,” “is a hard worker,” “listens,” and “does her best.” Children selecting Fredrico also associated more positively viewed attributes such as “friendly,” “nice,” and “be everyone’s friend.” The list of words in its entirety and the numbers of times that each word was used are listed in Appendix H.

Derived from the children’s responses, there were clear indications of Gregory and Coretta being the more “negatively viewed” puppets and Hilary and

Fredrico being the more “positively viewed” puppets (see Table 6). A one-sample chi-square test was conducted to assess whether children were significantly more likely to choose a “positively viewed” puppet as opposed to a more “negatively viewed” puppet. The results of the test were significant, $\chi^2(1, N = 281) = 43.85$, $p < .001$. The children were significantly more likely to choose a more “positively viewed” puppet, Hilary or Fredrico.

Table 6

“Negative” versus “Positive” Puppet Selection

	Puppet	<i>n</i>	% of total
“Negative” puppets	Gregory	39	14%
	Coretta	46	16%
	“Negative” puppet total	85	30%
“Positive” puppets	Hilary	77	27%
	Fredrico	119	42%
	“Positive” puppet total	196	70%
	Total	281	100%

The Use of *Always*, *Every Time*, and *Sometimes* and the Contradictions

One theme that reoccurred was children’s use of the words *always* and *sometimes*. Slightly over one quarter of the responses had the words, *sometimes*, *always*, *every time*, or combinations of these to describe how they were like the

selected puppet, as shown in Table 7. Another interesting observation was that a few children contradicted themselves, beginning the sentence by saying they always behaved or felt in a certain way and ending the sentence with an example of how they acted or felt differently. One child's response illustrates this point: "*Because I am always grumpy. Sometimes.*" and "*Because sometimes I always complain.*"

Table 7

Frequency of Using or Not Using Always, Every Time, and Sometimes by Puppet Selection

Puppet	No Words		<i>Always, every time</i>		<i>Sometimes</i>		Both		Both and contradiction		Total
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Gregory	17	53%	4	13%	8	25%	--	--	3	9%	32
Hilary	44	86%	3	6%	4	8%	--	--	--	--	51
Fredrico	77	84%	7	8%	6	6%	2	2%	--	--	92
Coretta	21	55%	5	13%	11	29%	--	--	1	3%	38
More than 1 puppet	--	--	--	--	2	100 %	--	--	--	--	2
Total	159	74%	19	9%	31	14%	2	1%	4	2%	215

Showing Altruism

When interviewed, several children who chose Hilary and Fredrico illustrated altruism by mentioning sharing, supporting, or helping in their responses. *“Because she is a hard worker and she helps Coretta. I help my friends.” “Because I do a lot of homework like her and she helps people when they don't know how to do stuff. I help people when they don't know what to do. Today [child's name] fell and hurt himself. He didn't know what to do. I told peacemaker.”* A child selecting Fredrico stated, *“Because he's friendly and he supports friends and people with their work.”* No responses from the children that imply altruism were found among responses for Gregory and Coretta.

The Use of Vignettes and Dilemmas From the Puppet Sessions as Examples

In addition to interacting directly with the puppets, the children watched a DVD with vignettes featuring the four puppets. The DVD contained vignettes about the four puppets and their dilemmas, which the children were asked to help solve. When interviewed, some of the children recounted scenarios from the DVD or examples from class as reasons why they were like a specific puppet. Some children described the vignette almost verbatim from the DVD. Others simply replaced their name with the puppet and retold the story. On a few occasions, the response was incorporated into examples from the child's life.

Overall, the majority of the children (70% to 94%) did not refer to the vignettes or dilemmas discussed during the puppet session. The children who referred to the vignettes more frequently were those choosing Gregory and Coretta (22% and 30%, respectively). Children selecting Gregory were more likely to recite a vignette to describe how they were like that puppet. One of the dilemmas shown to the class was Gregory getting into a fight with Fredrico because they both wanted to use a headset. One child referred to this dilemma by describing Gregory as being upset with Fredrico. He then went on to embellish what happened in the vignette, *“He hates Fredrico and was choking him.”* One child said, *“Coretta talks so slowly, and I speak slowly. Coretta stay close to her mom, and I stayed close to mom in the elevator.”* Fourteen percent of all the children who chose Fredrico included the vignettes. A child who selected Fredrico also used the vignette as an example of how he was similar to the puppet, *“Every time my mom goes to the toy store, I don't stay next to her. I go look at the toys. I give my number to strangers.”* Children that referred to the vignettes chose Hilary only on a few occasions (see Table 8).

“I Like to . . . ”

In 15 of the responses, children indicated that they liked to be a certain way or enjoyed an activity relevant to the puppet’s temperament. Of the “positively viewed” puppets, five children that chose Hilary and seven children that selected Fredrico used the reason why they were like the puppet because they

“like to” Responses for Hilary described her as enjoying working: *“Because I’m a hard worker and I work really hard and that I love to work”* and *“Because I like to work really hard and I always do my best when I work.”* Other response included, *“Because she did her work at home and school and I work hard at school, I like to read and read”* and *“Because I do a lot of work, I like doing other stuff like math and science. I am a good worker like Hilary.”* Some of the responses for Fredrico were, *“Because I like to meet new people and because he is nice”* and *“Fredrico, because I like to share like Fredrico and I’m happy sometimes.”*

Of the more “negatively viewed” puppets, only three children selecting Gregory used “like to . . .” and no children that selected Coretta indicated that they “like to . . .” as a reason. One child selecting Gregory said, *“Because I like to be mad all the time.”* Another child referenced Gregory’s high activity by stating, *“I like to jump in my house. My house is different because my mom bought me another bed.”*

Referring to the Puppet as a Real Person

Some children addressed the puppets as though they were alive and real. Three children said that they were like Fredrico because he was their friend. Another stated, *“I like him so much. He has a jacket on him. He puts the arm like this.”* One child said, *“Hilary is my friend.”* Another child said that she was Coretta’s friend *“because I like her because I am her friend—because she is*

always is scared and she's always asleep.” Another child said she was like Coretta, “because I would take care of her.” A response for Fredrico was, “Because I like him and he is nice.”

Table 8

Percentage of Children Referencing Vignettes From the Classroom Sessions by Puppet

Puppet	No vignette		Vignette		Total
	<i>n</i>	%	<i>n</i>	%	
Gregory	25	78%	7	22%	32
Hilary	48	94%	3	6%	51
Fredrico	81	87%	12	14%	93
Coretta	26	70%	11	30%	37
More than 1 puppet	1	50%	1	50%	2
Total	179	84%	34	16%	213

Who’s the Subject of the Interview: the Puppet, I, or Both?

When the children were asked why they were like a certain puppet, the majority began their responses with “because I” or “because (the puppet’s name).” Occasionally, a child included examples that contained both the puppet and the child as the subject. For example, one child began, “*Coretta talks so*

slowly and I speak slowly. Coretta stay close to her mom and I stayed close to mom in the elevator.” Another child said, “Because he is friendly. Because every time he goes somewhere he's excited, and when I go somewhere I'm excited, too.”

Of the responses, the children were least likely to refer to both themselves and the puppet (9% to 18%) and most likely to refer to themselves (37% to 75%). Children used the puppet as the subject 16% to 45% of the time. Children who selected Gregory referred to themselves more often than children who selected the other three puppets (75%; see Table 9).

Table 9

Number of Times Using the Word I, Puppet, or Both as the Sentence Subject by Puppet Selection

Puppet	<i>I</i> as subject		<i>Puppet</i> as subject		Both as subject		Total
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Gregory	24	75%	5	16%	3	9%	32
Hilary	25	49%	18	35%	8	16%	51
Fredrico	33	37%	41	45%	16	18%	90
Coretta	24	63%	10	26%	4	11%	38
More than 1 puppet	2	100%	--	--	--	--	2
Total	108	51%	74	35%	31	14%	213

Referencing the Future: I want to, I will

There were a handful of responses that referenced the future. Some of the responses included words such as *want* and *will*. A few examples were as follows: “*cause I want to be friendly,*” “*because I wanna be everyone's friend,*” “*I would be hard worker too, at home and at school,*” and “*because I am a hard worker at math and at home, and I am going to study hard in summer. I am going to study hard this summer.*”

More Than One Puppet

Although the interview did not account for children selecting more than one puppet, seven children stated that they were like more than one puppet. Three interviews were coded with multiple puppets selected, and four interviews contained notes that indicated that the child chose more than one puppet, but when specifically asked to choose only one puppet, selected only one.

One boy said that he was like all the puppets except Coretta.

Sometimes I'm like Fredrico, Hilary, and Gregory. Hilary because I do my work, and I work hard. Sometimes I get lost, carried away in good behavior. If I do my work I can go to recess—like Hilary—and sometimes I get carried away like Fredrico.

Another boy said that he was like all four puppets: “*Because sometimes I'm happy and sometimes I'm shy, sometimes I'm grumpy and sometimes I'm a hard worker.*”

The remaining two boys said that they were like both Fredrico and Gregory, “*Because sometimes I'm happy and sometimes I'm mad. When people say nice things to me I'm happy, and when people say mean things to me I get mad.*” and

“Gregory and Fredrico because I'm grumpy sometimes and so other times happy, but most times I'm grumpy like Gregory.”

Of the three girls who responded that they were like more than one puppet, two said they were like Hilary and Coretta. The first girl explained herself this way: *“Hilary and Coretta. I'm a hard worker and is true because I'm sometimes sorry because I want things to be perfect. I'm like Coretta because when I'm around other people I don't know I don't talk and stay very quiet.”* The second girl had a similar response: *“Because she's shy and Hilary because I'm a hard worker and I do my homework and Coretta she's afraid to do something and I do too.”* The third girl stated that she was like all four puppets: *“All of them are like me. It's hard for me to pick. I really am like all. When I'm happy and friendly I like it better than being angry. I always have a smile.”*

Words Used To Describe Why They Are Most Like the Selected Puppet

Responses were documented by the descriptive words used to illustrate why children were like the selected puppet. Children used three words that were part of the puppets' names (grumpy, hard worker, and friendly) more than any other descriptive word. The majority of the responses contained the words like “grumpy” and “mad” when describing Gregory. Most of the children used words such as “hard worker,” “work,” and “work hard” to describe why they were like Hilary. Children who selected Fredrico were most likely to use the word

“friendly.” Other words used to describe Fredrico were “nice,” “have friends” and “play.”

The children, however, did not tend to describe Coretta as cautious, which was the word used to explain her in the program. Only six children used “cautious” as a reason why they are like Coretta. Instead the children were most likely to use the word “shy” as a reason why they are most like Coretta. A couple of other words were used to describe both Hilary and Fredrico—nice and friendly—whereas only one child used that word to describe Coretta as nice. Children used “meeting people” as reasons they selected Fredrico and Coretta, but for opposite reasons. Children stated that they were like Fredrico because he liked to meet new people. Children said that they were like Coretta because she was shy when she met new people (see Appendix H).

Use of the Program-Curriculum Vocabulary Words

During the 10 weeks, the children were exposed to other vocabulary words that were a component of the program curriculum: temperament, observer, observation, unique, easy, challenging, industrious, scientist, and dilemmas. The words were printed on cards and reviewed with the children. Only one child used the word temperament: *“Because she's shy and when she talks she doesn't want to speak about her temperament. Sometimes when I go on stage, I'm shy.”*

Temperament Dimensions

The interviews were coded based on the four temperament dimensions. Children's responses were interpreted in relation to the temperament dimensions of the selected puppet: withdrawal, negative reactivity, activity, and task persistence (see Table 10). For instance, a child stating that he was like Coretta because he is shy was coded as being high in withdrawal. A child stating that he was like Gregory because he cannot sit still was coded as being high in activity and low task persistence. For children choosing Gregory the Grumpy, responses stating that they were grumpy were coded as being high in negative reactivity.

The children's responses for Gregory tended to be associated predominately with high negative reactivity (29 times out of 32 responses; 85%). Three children also indicated low task persistence by stating, *"I can't control myself," "It's hard to do stuff like concentrate on my work,"* and *"(Gregory, the puppet) doesn't listen to the teacher because I like to do other things."* Two children (6%) addressed high activity by saying that *"he likes to jump on his house"* and that *"he cannot control himself."*

In 42 out of the 51 instances (71%) in which children identified themselves as Hilary the Hard Worker, children referenced the temperament dimension of high task persistence by using words such as *"hard worker," "I/she works hard,"* and *"finish all my work."* For example, a child who stated, *"Because I work hard. I follow directions. I did my book and finish"* was coded as high in

task persistence. Fourteen children (24%) also indicated that they were low in negative reactivity. One child responded, “*She works very hard and she doesn’t say, ‘I don’t want to do this.’*” Although withdrawal was not a salient dimension in the typologies reported by McClowry (2002), three children (5%) mentioned that they were like Hilary because she is friendly. Children who used “friendly” in their responses were coded as being low in negative reactivity and low in withdrawal.

Both low negative reactivity and low withdrawal were predominant dimensions in the responses for Fredrico, with children referring to these temperament dimensions 51% and 42% of the time, respectively (78 and 63 mentions, respectively). Of the 78 children (51%) cited low negative reactivity as their reason for being like Fredrico used words such as “nice,” “friendly,” “have friends,” “happy.” As stated earlier, children who used the word “friendly” in their response were coded as being both low in negative reactivity and low in withdrawal. Sixty-three children (42%) stated that they were like Fredrico because “*they like to meet new people*” and “*are friendly,*” both of which I coded as representing low withdrawal. Eleven children (7%) described themselves as being high in activity.

For children who selected Coretta the Cautious ($n = 40$), 38 children (95%) referred to the dimension of high withdrawal. One example is, “*I’m very cautious. When I meet people I am shy and I don’t speak.*” Although Coretta was also high in negative reactivity, children who identified as Coretta did not

describe themselves as being high in negative reactivity. The following table displays the number of times the children's responses referred to the specific dimensions for all four puppet profiles.

Table 10

Children's Description of Selected Puppet by Temperament Dimension

Puppet	Times referenced	Temperament Dimension							
		Negative reactivity		Task persistence		Activity		Withdrawal	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Gregory	34	29	85%	3	9%	2	6%	--	--
Hilary	59	14	24%	42	71%	--	--	3	5%
Fredrico	152	78	51%	--	--	11	7%	63	42%
Coretta	40	2	5%	--	--	--	--	38	95%
Total	285	123	43%	45	16%	13	5%	104	36%

Note. The bold numbers indicate the temperament dimension salient to the puppet's temperament.

Internal Versus External Behavioral States

Another category that emerged was the diversity of descriptive words chosen to describe the specific puppets (as shown in Table 11). These descriptive words tended to fall into two categories: externally and internally oriented states. Externally oriented states apply to behaviors that are action oriented. Internal

behaviors reflect more emotional states. Words to describe Gregory were predominately associated with internal behavioral states or emotions, and some common examples were “grumpy,” “mad,” “angry,” and “not happy” (41%). Children who chose Coretta also listed emotions as the reason they were most like her (35%). For instance, one child said, *“I always get too shy like Coretta. I’m always shy.”* Several children also described situations when they were cautious, stating, *“I’m very cautious. When I meet people I am shy and I don’t speak.”* Children selecting Coretta were least likely to refer to only external behaviors (3%) and more likely to document both internal and external behaviors as the reason for identification with the puppet (62%). Interviews with children who said they were most like Fredrico focused on internal behavior states such as “happy” and “nice,” as well as external behaviors such as “meet new people,” “have friends,” and “likes to play” (56%). The responses associated with Hilary were predominately action-based and externally oriented versus emotion-based and internally oriented (90%). For example, responses for Hilary tended to be related to doing work; for instance, one child stated, *“Because I work hard. I follow directions. I did my book and I finish.”*

Responses Unique to the Puppet

Although primarily all the descriptions were unique for each puppet, there were some responses pertaining to Coretta and Hilary that were not anticipated. Six children chose Hilary because she “is good,” “doesn’t get into trouble,”

“behaves,” and “is a good listener.” Statements about doing their best and doing good work were also unique to responses describing Hilary. Four children selecting Coretta stated that they were shy when performing, dancing or being on stage.

Table 11

Internal versus External Behavioral States

Puppet	Internal states		External states		Both		Total
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Gregory	13	41%	7	22%	12	37%	32
Hilary	2	4%	46	90%	3	6%	51
Fredrico	49	56%	19	22%	19	22%	87
Coretta	13	35%	1	3%	23	62%	37
More than 1 puppet	--	--	--	--	2	100%	2
Total	77	37%	73	35%	59	28%	209

Complex Responses

The children’s interviews were also sorted in relation to the level of complexity of their responses. The parameters around evaluating complexity were whether children accurately described the selected puppet’s temperament and generalized the information to apply the puppet’s temperament to their own temperament. The following is an example of a complex response, “*Because*

when I get angry, I get very angry very easily and can't control myself. I'm honest too, like Gregory."

Other complex responses given for Gregory were, *"Because sometimes it's hard to do stuff like concentrate on my work and I get mad"* and *"Because sometimes I am really angry, and I'm really honest with people, and when I don't want to do something, I tell people."* Because Gregory is high in negative reactivity, he tends to tell people what he thinks, is known to be honest about his feelings, and is not hesitant to share them. Gregory is also low in task persistence; therefore, it is challenging for him to focus on tasks for long periods of time.

An example of a complex statement describing why Fredrico was chosen was, *"Because he's friendly and nice to other people and when he has problems he doesn't get mad."* This statement illustrates Fredrico's temperament as being low in withdrawal and low in negative reactivity.

One child identified Hilary by saying, *"She works really hard and because she doesn't say 'I don't want to do this.'"* Hilary's profile includes her being low in negative reactivity; therefore, she tends to be agreeable. Another example displays Hilary's high task persistence and low negative reactivity by listening: *"Because I listen to what my teacher says, and I do all my writing, and I read all my books when it's reading workshop."*

An example from an interview describing Coretta stated, *"Because I be shy, sometimes I don't want to be the line leader, I don't want to be first. I don't want to be the first one in my class because sometimes I be shy."* This statement

offers an accurate portrayal of how Coretta would react if she were line leader given her tendency to be high in withdrawal.

Examples of responses that did not apply to the selected puppets include, *“because when someone slides he falls on the ground”* and *“cause I wanna be his friend.”* Some were accurate on a physical level but the interview response did not encompass information pertaining to the puppets’ temperament (e.g., *“because she got curls and I like her dress”* and *“because he got a shirt and I got his face and hair, it's like mine”*).

A Lead That Did Not Really Lead Anywhere

Another area was pursued but was dismissed when it was clear that a pattern could not be developed. Specifically, the interviews were coded by the number of times they referenced school (e.g., teachers, classmates, school, situations taking place in school) versus home (e.g., family members, home). The only prevalent finding was that over a third of the responses for Hilary referenced words associated with school (see Table 12).

Quantitative Analysis for Research Question 2

The second aim of the current study was to examine the level of agreement among children’s self-reported temperament and reports provided by parents and teachers. This was explored in four ways. First, the children’s responses were compared with parental reports. Next, the children’s responses

were examined with the teachers' reports. Then, parent and teacher responses were compared. Finally, I analyzed the level of agreement between all three informants: children, parents, and teachers.

Table 12

Children's Responses Referencing Home Versus School

Puppet	Home		School		Both		Other		Total
	<i>n</i>	%	<i>N</i>	%	<i>n</i>	%	<i>n</i>	%	
Gregory	3	9%	3	10%	0	--	26	81%	32
Hilary	1	2%	9	17%	7	14%	34	67%	51
Fredrico	3	7%	3	3%	2	2%	81	88%	92
Coretta	3	8%	7	18%	--	--	28	74%	38
More than 1 puppet	--	--	--	--	--	--	2	100%	2
Total	13	6%	22	10%	9	4%	171	80%	215

Analysis of Parent–Child and Teacher–Child Agreement

Once the data were prepared to assess the degree of cross-informant agreement, four parallel analyses were conducted based on each of the four puppet profiles. First, the children's choice of puppet was compared with the responses of their parents and teachers by temperament profile (i.e. puppets). Next, the levels of salient temperament dimensions for a given selected puppet

were compared with the dimension levels from the parental reports. For example, all of the children who selected Gregory were classified as self-identifying as high in negative reactivity, low in task persistence, and high in activity. Parental reports that scored their child in the upper third for the dimension of negative reactivity were also classified as high and were considered in agreement with the children's reports. The percentages of parental reports that were in agreement with the children's reports were calculated for the selected puppet's salient temperament dimensions. This procedure was repeated for each puppet. The same method was conducted to compare the child and teacher reports.

Analysis of Multi-Informant Agreement

To analyze the multi-informant agreement among the children, parents, and teachers, bivariate correlations and chi-square analyses were conducted. Scores from parental and teachers reports were correlated by the salient temperament dimensions by the selected puppet. In other words, for all of the children who chose Gregory, the parental and teacher reports of Gregory's salient dimensions were compared: negative reactivity, task persistence, and activity. This procedure was repeated for each salient dimension for all four puppet profiles.

To further examine the agreement between parents and teachers, chi-square analyses were conducted. This statistical test was used because it compares expected frequencies with observed frequencies (Nunnally & Bernstein, 1994).

This procedure indicates the level of temperament dimension in which the parental and teacher reports were in agreement. By puppet selection, a chi-square compared the level of agreement between parents and teachers for each of the puppet's salient dimension. Although the numbers were too low to have enough power to conduct a formal analysis, the chi-square allowed for an examination of the frequency of the level agreement between parents, teachers, and children. This process was conducted for each puppet profile separately and was reported by puppet profile.

Parent–Teacher Correlations

Pearson correlations were calculated to compare teacher and parental reports of the children's puppet selections. The descriptive statistics and intercorrelations among parents' and teachers' reports of child temperament are listed in Table 13. The parent–teacher agreement among the four temperament dimensions: negative reactivity, task persistence, withdrawal, and activity, were all statistically significant, ranging from .21 to .35 ($p < .001$). For children choosing Gregory and Coretta, only the dimension of task persistence was statistically significant ($p < .05$). All correlations for the four temperament dimensions were statistically significant ($p < .05$, .01, .001.) for the children selecting Hilary and Fredrico, as shown in Table 13.

Table 13

Agreement Correlations Between Teachers and Parents by Children's Selection of the Puppet That Was Most Like Them

Temperament dimension	Overall <i>N</i> = 265	Gregory <i>n</i> = 33	Hilary <i>n</i> = 74	Fredrico <i>n</i> = 113	Coretta <i>n</i> = 42
Negative reactivity	.25***	.05	.34**	.23*	.19
Task persistence	.35***	.44*	.40***	.26**	.44*
Withdrawal	.21***	.18	.27*	.19*	.14
Activity	.27***	.31	.25*	.20*	.25

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

Children Selecting Gregory the Grumpy

Gregory the Grumpy was chosen 39 times. With this selection, children self-identified as being high in negative reactivity, low in task persistence, and high in activity. Of the children that selected Gregory as being most like him, 8 parents and 12 teachers also recognized them as Gregory (21% and 31%, respectively). Five children (13%) were identified as Gregory by both their teacher and parent (see Table 14 and Figure 1).

Gregory the Grumpy: Parent-Child Agreement and Teacher-Child Agreement

Responses from the parents and teachers show that of the 39 children who selected Gregory, 45% of parents ($n = 16$) and 47% of teachers ($n = 17$) found these children to be high in negative reactivity. Children selecting Gregory indicated that they were also low in task persistence. Among their parents and teachers, 39% and 58%, respectively, reported that they were low in task persistence. In terms of activity, 47% of parents and 53% of teachers rated their children as high (see Table 14 and Figures 2–4).

Gregory the Grumpy: Multi-Informant Agreement

Of the parents with children who stated that they were like Gregory, 16 identified their children as being high in negative reactivity (45%). The teachers identified 17 children as being high in negative reactivity (47%). A chi-square analysis was conducted to examine if the parents and teachers thought the same children were high in negative reactivity. The results revealed significant differences between parents' and teachers' ratings in this regard. Specifically, only six parents and teachers (18%) agreed that their child was high in negative reactivity. Ten reports (30%) were in agreement on task persistence. For the salient dimension, high activity, the children and adults also agreed on 30% of the reports (see Table 14 and Figures 2–4).

Table 14

Percentages of Children's Selection of the Four Puppets With Adults' Ratings by Puppet Temperament Profile

Puppet	Child	Parent		Teacher		Parent–teacher agreement	
	<i>n</i>	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Gregory	39	8	21%	12	31%	5	13%
Hilary	77	9	12%	16	21%	4	5%
Fredrico	119	20	17%	18	15%	2	2%
Coretta	46	1	2%	7	15%	0	%

Table 15

Percentages of Children's Selection of Gregory's Salient Dimensions With Ratings by Adults

Temperament dimension	Level	Parent		Teacher		Parent–teacher agreement	
		(<i>n</i> =36)	%	(<i>n</i> =36)	%	(<i>n</i> =33)	%
Negative reactivity	High	16	45%	17	47%	6	18%
Task persistence	Low	14	39%	21	58%	10	30%
Activity	High	17	47%	19	53%	10	30%

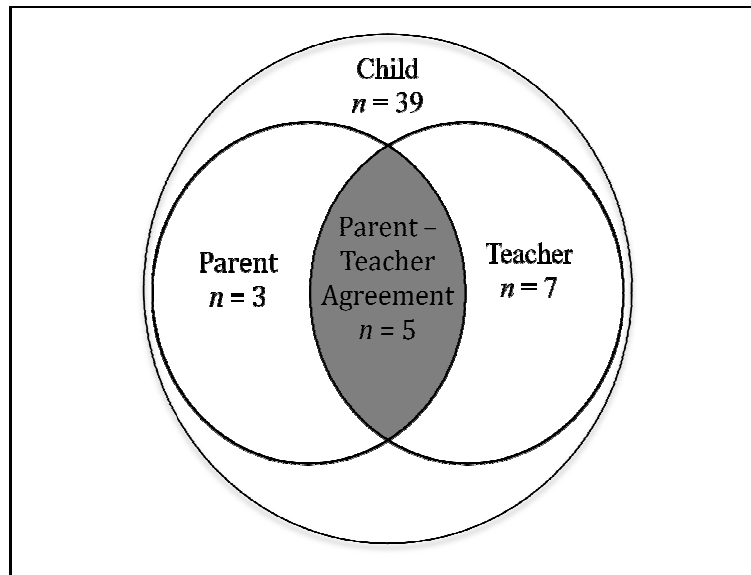


Figure 1. Number of Children's Selection of Gregory's Salient Dimensions With Adults' Ratings of Gregory's Temperament Profile.

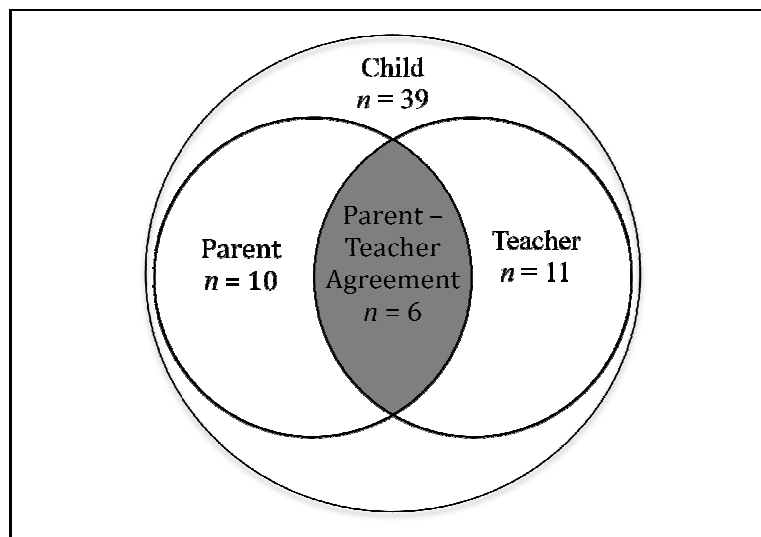


Figure 2. Number of Children's Selection of Gregory's Salient Dimensions With Adults' Ratings of High Negative Reactivity.

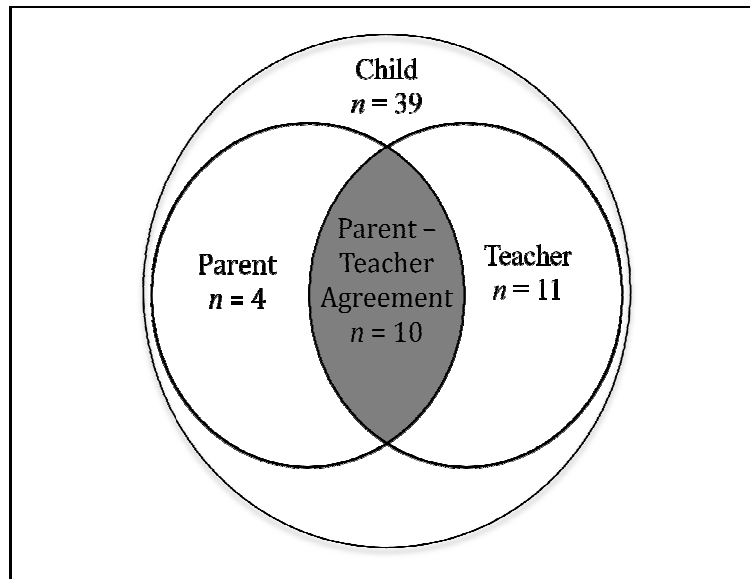


Figure 3. Number of Children's Selection of Gregory's Salient Dimensions With Adults' Ratings of Low Task Persistence.

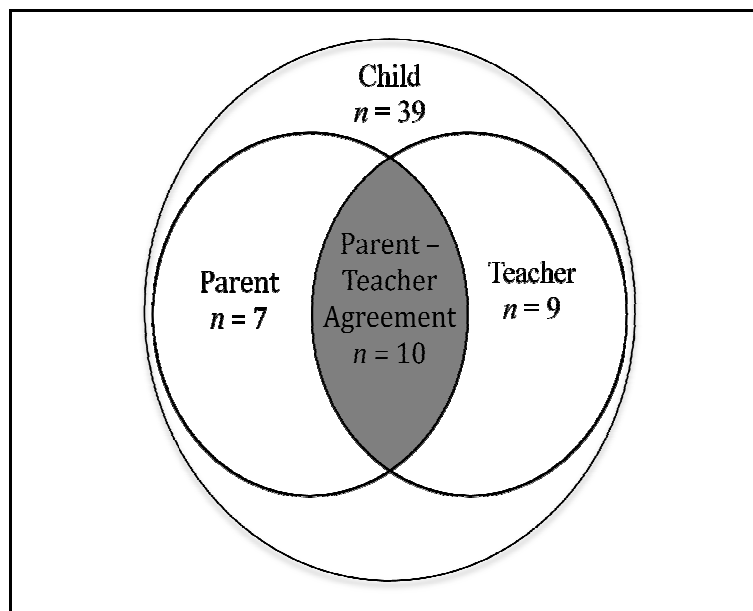


Figure 4. Number of Children's Selection of Gregory's Salient Dimensions With Adults' Ratings of High Activity.

Children Selecting Hilary the Hard Worker

Hilary the Hard Worker was chosen 77 times. With this selection, children self-identified as being low in negative reactivity, high in task persistence, and low in activity. Of the children that choose Hilary, 9 parents and 16 teachers identified these children as Hilary (12% and 21%, respectively). Parents and teachers agreed on four children (5%) as being like Hilary (see Table 14 and Figure 5).

Hilary the Hard Worker: Parent–Child Agreement and Teacher–Child Agreement

For children who chose Hilary as the puppet that was most like them, 45% of parents and 43% of teachers said they were low in negative reactivity. For task persistence, 35% of parents and 33% of teachers reported their children as being high in this dimension. Children who selected Hilary self-identified as being low in activity; among these children, 32% of their parents and 50% of their teachers identified them as being low in activity (see Table 16 and Figures 6–8).

Hilary the Hard Worker: Multi-Informant Agreement

Twenty-two parents and teachers (30%) rated the same child as low in negative reactivity. Thirteen parents and teachers (18%) rated the same child as high in activity. Seventeen parents and teachers (23%) rated the same child as low in activity (see Table 16 and Figures 6–8).

Table 16

Percentages of Children's Selection of Hilary's Salient Dimensions with Ratings by Adults

Temperament dimension	Level	Parent		Teacher		Parent-teacher agreement	
		(n = 75)	%	(n = 76)	%	(n = 74)	%
Negative reactivity	Low	34	45%	33	43%	22	30%
Task persistence	High	26	35%	25	33%	13	18%
Activity	Low	24	32%	38	50%	17	23%

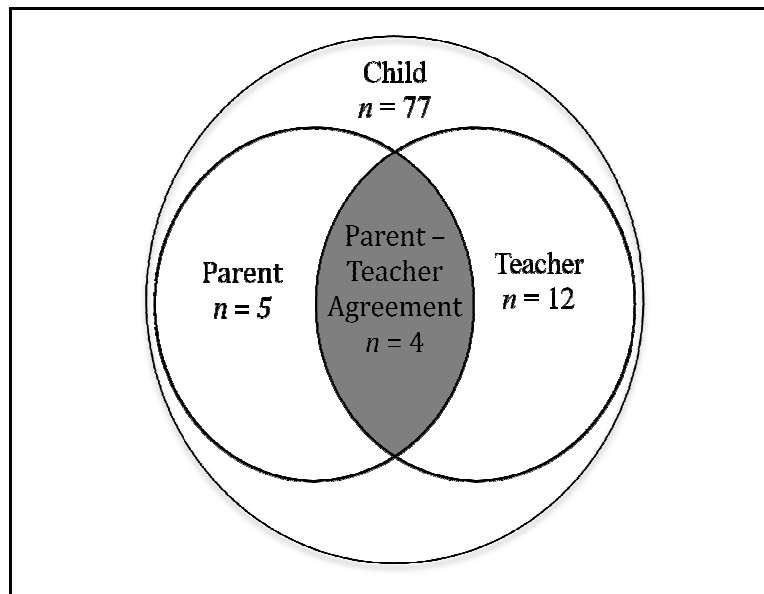


Figure 5. Number of Children's Selection of Hilary's Salient Dimensions With Adults' Ratings of Hilary's Temperament Profile.

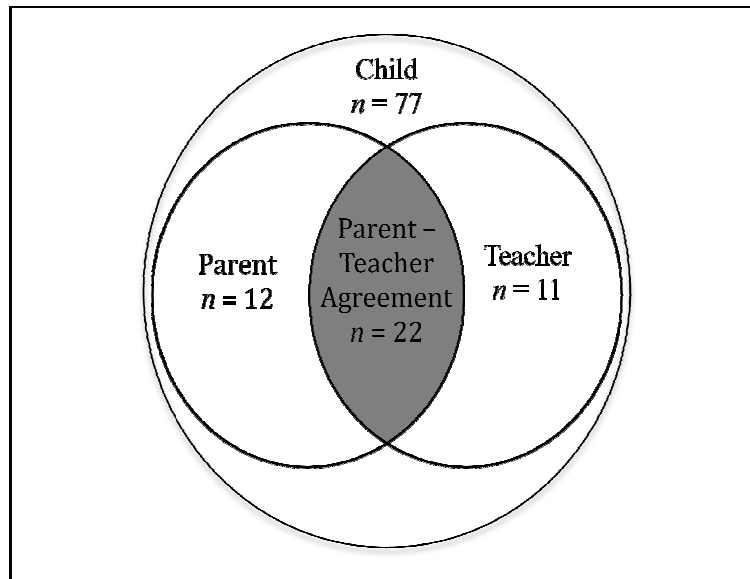


Figure 6. Number of Children's Selection of Hilary's Salient Dimensions With Adults' Ratings of Low Negative Reactivity.

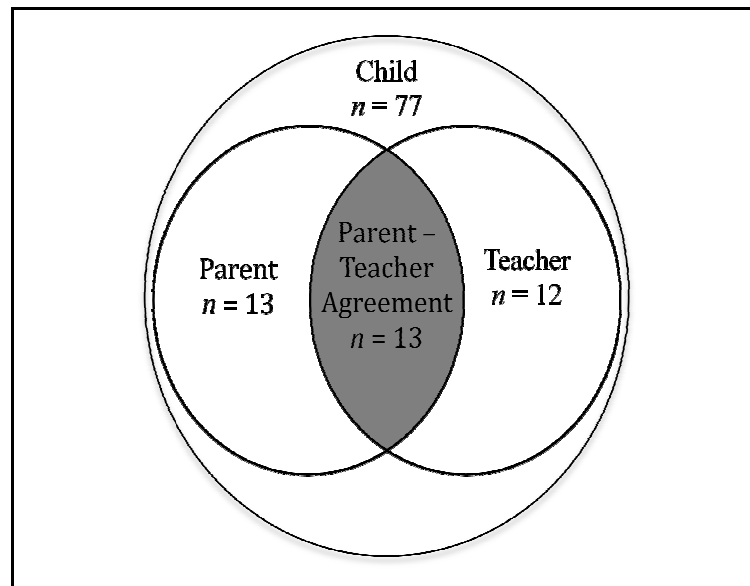


Figure 7. Number of Children's Selection of Hilary's Salient Dimensions With Adults' Ratings of High Task Persistence.

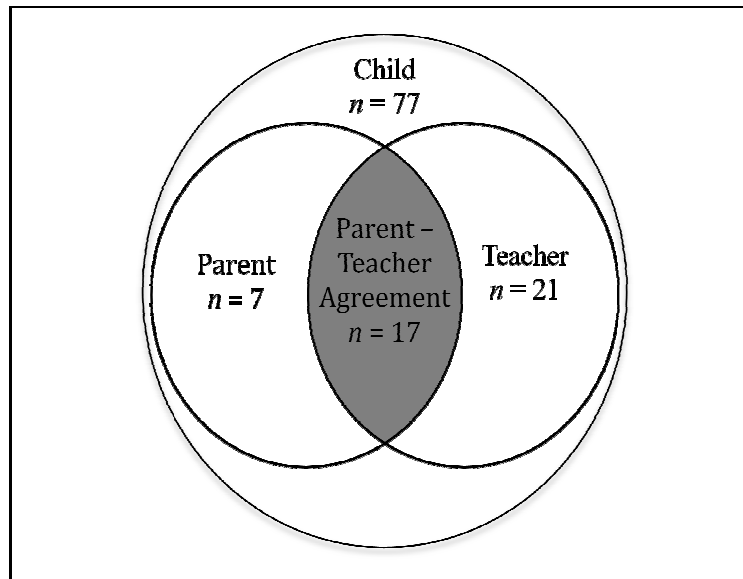


Figure 8. Number of Children's Selection of Hilary's Salient Dimensions With Adults' Ratings of Low Activity.

Children Selecting Fredrico the Friendly

Children who chose Fredrico self-identified as being low in negative reactivity and low in withdrawal. One hundred and nineteen children selected this puppet as being most like themselves. Of the 119 children who chose Fredrico, 20 parents and 18 teachers also identified them as such (17% and 15%, respectively). Only two parents and teachers (2%) rated the same children as Fredrico (see Table 14 and Figure 9).

Fredrico the Friendly: Parent–Child Agreement and Teacher–Child Agreement

Fifty percent of the parents and 45% of the teachers of the children who chose Fredrico ($n = 57$ and $n = 53$, respectively) rated them as being low in

negative reactivity. Among the parents and teachers of children who selected Frederico, 34% and 36%, respectively ($n = 39$ and $n = 42$), identified the children as being low in withdrawal (see Table 17 and Figures 10–11).

Fredrico the Friendly: Multi-Informant Agreement

Twenty-eight parents and teachers (25%) rated the same child as being low in negative reactivity. When comparing the parent, teacher, and child reports, 16% rated the same child as being low in withdrawal ($n = 18$; see Table 17 and Figures 10–11).

Table 17

Percentages of Children's Selection of Fredrico's Salient Dimensions With

Ratings by Adults

Temperament dimension	Level	Parent		Teacher		Parent–teacher agreement	
		($n = 114$)	%	($n = 118$)	%	($n = 113$)	%
Negative reactivity	Low	57	50%	53	45%	28	25%
Withdrawal	Low	39	34%	42	36%	18	16%

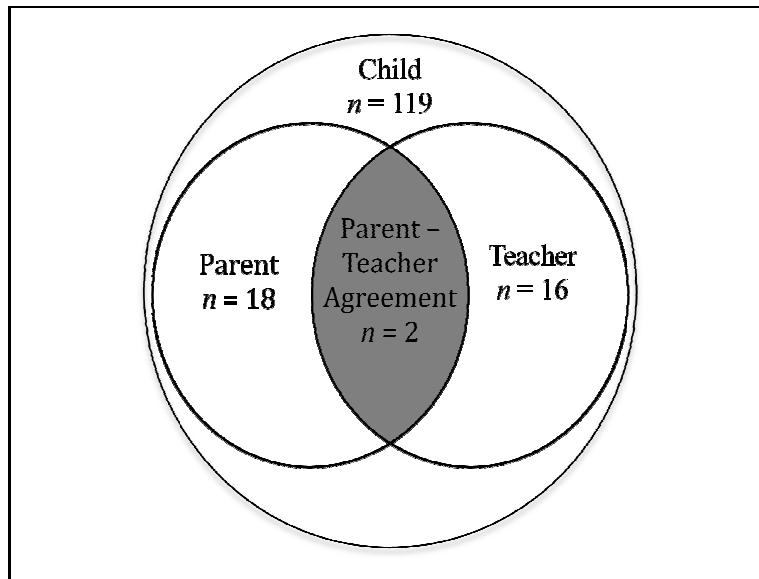


Figure 9. Number of Children's Selection of Fredrico's Salient Dimensions With Adults' Ratings Fredrico's Temperament Profile.

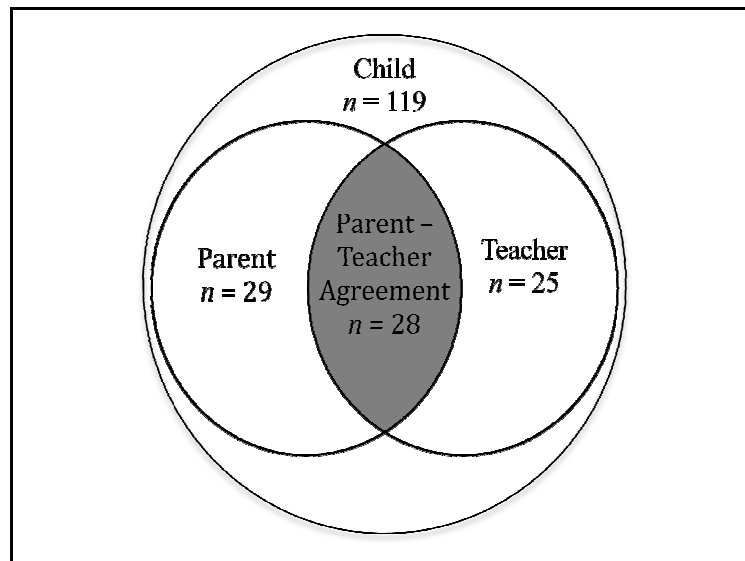


Figure 10. Number of Children's Selection of Fredrico's Salient Dimensions With Adults' Ratings of Low Negative Reactivity.

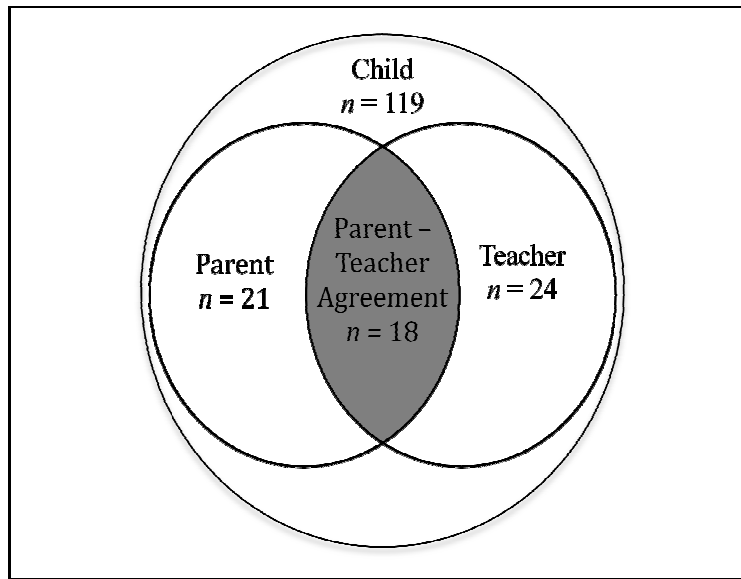


Figure 11. Number of Children's Selection of Fredrico's Salient Dimensions
With Adults' Ratings of Low Withdrawal.

Children Selecting Coretta the Cautious

Coretta the Cautious's temperament profile consists of being high in both negative reactivity and withdrawal. Forty-six children chose Coretta as being most like them. Of those children, only one parent and seven teachers rated them as Coretta (2% and 15%, respectively). There was no agreement between parents and teachers (see Table 14 and Figure 12).

Coretta the Cautious: Parent–Child Agreement and Teacher–Child Agreement

Of the children who reported that they were like Coretta, 28% of their parents ($n = 12$) and 23% of their teachers ($n = 10$) reported them as being high in negative reactivity. Thirty-seven percent of parents ($n = 16$) and 23% of teachers

($n = 10$) rated the same child as being high in withdrawal (see Table 18 and Figures 12–13).

Coretta the Cautious: Multi-Informant Agreement

Only 10% of the adult informants ($n = 4$) agreed with the children's self-assessments of being high in negative reactivity. Children who chose Coretta identified with Coretta's high withdrawal. There was only 12% agreement between the parents, children, and teachers ($n = 5$; see Table 18 and Figures 12–13).

Table 18

Percentages of Children's Selection of Coretta's Salient Dimensions With Ratings by Adults

Temperament dimension	Level	Parent		Teacher		Parent–teacher agreement	
		($n = 43$)	%	($n = 44$)	%	($n = 42$)	%
Negative reactivity	High	12	28%	10	23%	4	10%
Withdrawal	High	16	37%	10	23%	5	12%

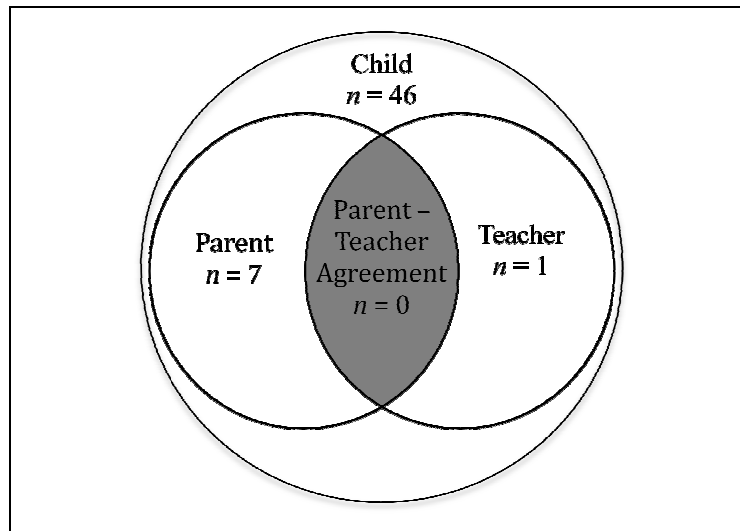


Figure 12. Number of Children's Selection of Coretta's Salient Dimensions With Adults' Ratings Coretta's Temperament Profile.

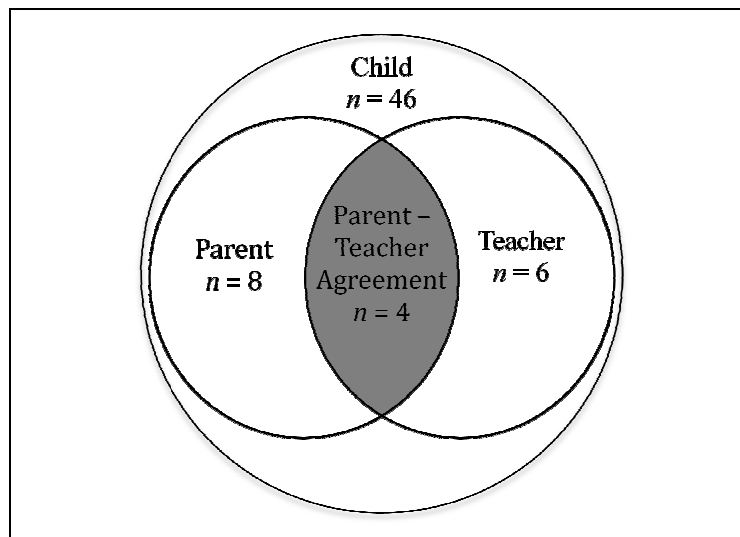


Figure 13. Number of Children's Selection of Coretta's Salient Dimensions With Adults' Ratings of High Negative Reactivity.

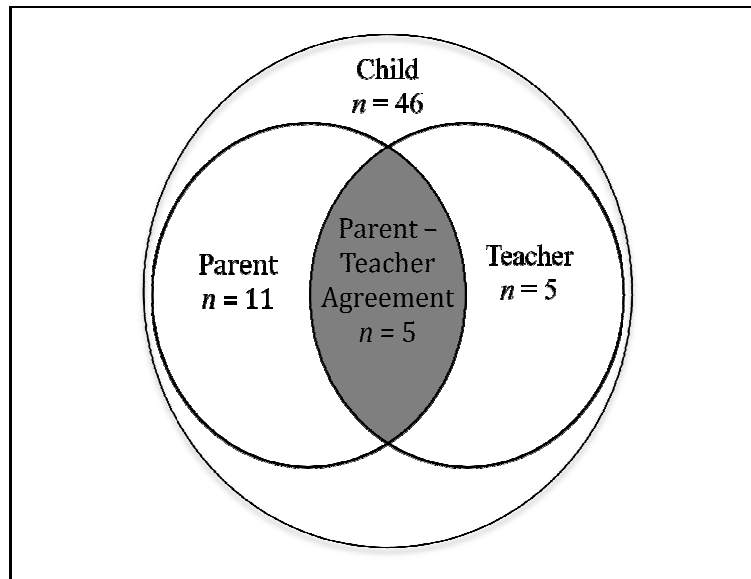


Figure 14. Number of Children's Selection of Coretta's Salient Dimensions With Adults' Ratings of High Withdrawal.

Summary

The findings from both the qualitative and quantitative results reveal insights into the children's perception of their temperament. Clear trends regarding gender, social desirability, and comprehension of the question were uncovered. The analysis of the results are reviewed in the following discussion chapter.

CHAPTER V

DISCUSSION

This study examined the validity of children's self-reports of their temperament after participating in a 10-week educational theatre puppet program called *INSIGHTS into Children's Temperament*. Specifically, children were asked to select a puppet that was most like them following their participation in *INSIGHTS*; the children's selections were intended to demonstrate perceptions of their own temperament. The results of the study support the use of educational theatre as an educational medium and explore its use as a self-report method for children.

Specifically, two research questions framed this study:

1. How do children identify their temperament following a 10-week educational theatre program using puppets that represent four common temperament profiles?
2. What was the level of agreement between children's self-reported temperament and reports provided by their parents and teachers?

This chapter discusses the findings from the qualitative and quantitative analyses. The first section reviews the findings related to the children's puppet

selections and the reasons they gave for their selections. Then the children's and the adults' responses are compared and contrasted with the existing literature. Finally, the strengths, limitations, and recommendations for the field of educational theatre are addressed along with a discussion on using puppets as a self-report method.

Children's Selection of the Puppet Profiles

The children's selection of puppets was predominately related to two factors: the gender of the child and a choice between positively viewed puppets versus negatively viewed puppets. Based on the findings, I conclude that children showed clear preferences for puppets of their gender. The children were also partial to choosing the more socially desirable or positively viewed puppet that matched their gender, Hilary and Fredrico.

The following section further explains how the gender of the children's puppet selections compared with parents' and teachers' responses. The section also discusses the differences between the responses of children who chose the positively viewed puppets, Hilary and Fredrico, versus the responses of children who selected the negatively viewed puppets, Gregory and Coretta. The children's perceptions of the puppets and their interpretations of the interview questions are also discussed.

Gendered Puppets

The majority of the children selected same-gendered puppets. Boys were significantly more likely to endorse Gregory and Fredrico as being most like them, whereas girls selected Hilary and Coretta the majority of the time. Moreover, within each gender, boys and girls tended to select the positive same-gendered puppets; specifically, the boys selected Fredrico, and the girls selected Hilary. The responses of children who selected more than one puppet also followed this trend, with children tending to choose either all four puppets or only the same-gendered puppets. This lends further insight into how the gender of the children and the puppets influenced their selections.

Haworth (1957) made similar observations, finding that boys mainly chose a male character (Casper) and girls chose a female character (the mother) when asked which character they were most like. Using gender-neutral puppets and forced-choice responses, Eder (1990) found that children would have a tendency to still choose the puppets that were perceived as being the same gender. For instance, one child said that she was not like either puppet because they were boys. Recognizing this tendency, Eder (1990) later color-coded the puppets, blue for boys and pink for girls to control for gender-selection bias.

This trend was consistent with observations I made during the classroom sessions. Throughout the 10-week period, considerable effort was made to state that boys can be cautious and hardworking and girls can be grumpy and friendly. Regardless, gender proved to be a prominent factor during the discussions with

the children. Interestingly, when I facilitated the sessions, children were very agreeable when I asked, “Can girls be friendly like Fredrico and grumpy like Gregory?” and “Can boys be hardworking like Hilary?” But when I asked, “Can boys be cautious like Coretta?” many children were hesitant to agree. Consistent with this observation, during the 10 weeks of the program, the children were encouraged to solve their own dilemmas by acting them out with the puppets. In doing so, they were asked to select a puppet that was most like them to role-play their dilemma. In most instances the children chose same-gendered puppets. Almost as frequently, the children selected the more positive same-gendered puppet, Fredrico or Hilary.

To circumvent the bias toward same-gendered puppets, researchers have either utilized gender-neutral puppets, animals, or same-gendered puppets in their studies. Eder (1990) assigned stereotypical names and colors (blue for boys and pink for girls), and these puppets were used with children of the same gender. Other researchers have used teddy bears (Roth et al., 2004), puppy dogs (Ablow et al., 1999; Boulifard, 2004; Goodvin, 2007; Hwang, 2002; Measelle et al., 1998; Measelle et al., 2005), and a variety of gender-neutral animals (Egge et al., 1987). To address the influence of gender, the *INSIGHTS* longitudinal study added opposite gendered puppets: Gretchen the Grumpy, Felicity the Friendly, Henry the Hard Worker, and Carlos the Cautious (see Appendix I).

While children were significantly more likely to choose a same-gendered puppet, the responses from parents and teachers provided a different picture for

three of the puppets. In particular, parents and teachers described more boys as being like Coretta and more girls as being like Fredrico. Teachers scored more girls as being like Hilary, whereas parents scored more boys as being like her. The one puppet where parents and teachers categorized more boys for the same gendered puppet was Gregory. The results of the factor analyses from the SATI (McClowry, 2002b) also supported the finding that parents disproportionately identified boys as high maintenance (like Gregory).

The “Positive” Versus “Negative” Puppets

The children’s responses provide insight into how the puppets were perceived. The majority of children chose the puppets with the more positively interpreted attributes—Fredrico the Friendly and Hilary the Hard Worker—over the puppets with the more negatively viewed puppets, Gregory the Grumpy and Coretta the Cautious.

Over the course of the 10-week classroom program, each of the four puppet stories contained instances where both strengths and concerns relevant to their temperament profiles were explored and discussed in class. For example, Gregory is grumpy, but he is also honest. In a vignette about Gregory, he has difficulty finishing his homework. When his class goes to a museum, he also is very honest about his feelings about not wanting to go. In addition, Gregory talks about how he loves to play sports and be active.

Fredrico is friendly, but he talks to strangers. During the classroom session, Fredrico is extremely excited to meet all of the children. However, his eagerness to explore everything also leads him to run away from his mother after she scolds him for wandering around the store by himself.

Hilary is a hard worker, but can get caught up trying to help other students with their work. Her industrious nature is demonstrated by not wanting to play with another puppet because she wants to finish her homework instead. Later, a couple of her classmates do not want to play with Hilary because they perceive her as the teacher's pet, which upsets Hilary. As such, students work together to help solve Hilary's dilemma of how to handle the situation.

Coretta is cautious, but she does not talk to strangers. In Coretta's story, she does not want to play a group game because she is scared to try new things. Coretta also shares her dilemma of not wanting to go to the zoo because the big animals frighten her. The students used the puppets to reassure Coretta that she will be okay and offered to hold her hand at the zoo. Coretta, unlike Fredrico, stays close to her mom when she is in a new environment.

Through the puppets, the children learned more about the four characters and how they each react differently in similar situations. Using drama as a learning medium, students were able to discuss how the puppets felt when they had a dilemma. Courtney (1974) stated, "amongst the many values that drama has is an emotional one" (p. 47). After exploring how the puppets felt, the children in the *INSIGHTS* program considered multiple actions that emerged from the

puppets' temperaments and reflected on the pros and cons of each puppet's scenario. Once puppets' dilemmas were solved, the children explored their own dilemmas. Through the exploration of emotions, children practiced expressing how they felt when they had the dilemma. They continued by acting out different options to resolve the dilemma. This process allowed the children to explore not only their own emotions but also the feelings of their classmates because "in providing an emotional release, [the process] also offers opportunity for emotional control, and thus it provides an inner self-discipline" (Courtney, 1974, p. 47). Through the use of role play and improvisation with the puppets, the children practiced self-regulation and healthy decision-making. This engagement with the puppet's stories undoubtedly impacted how the children responded to interview questions.

Even though both aspects of the puppets were addressed, the children's responses indicated that they associated themselves with specific negative and positive values of the puppets. For instance, when describing why they were most like Gregory or Coretta, children were more likely to refer to negative or less desirable traits, such as being grumpy or shy. When selecting Hilary and Fredrico, children referred to more positive or desirable traits such as being hardworking or friendly. Researchers have identified this tendency as social desirability. Social desirability in self-reporting has been a concern in other studies including young children (Comer & Kendall, 2004; Cugmas, 2002; Hwang, 2002; Paulhus, 1991). These findings support the notion that social desirability may be a factor when

interviewing children. Hwang (2002) found that children were less likely to identify with sadness and shyness and more likely to give higher ratings of smiling or laughter. She cautioned that these findings might be the result of social desirability or may indeed truly reflect the children's view of themselves. She also noted that the distribution of the results for fear and anger did not follow this trend and were closer to the norm. Studies have also shown that the desire to give positive responses decreased with age (Dadds, Perrin, & Yule, 1998; Roth et al., 2004).

The Use of *Always*, *Every Time*, and *Sometimes* and Contradictions

Another way that the data indicated a clear distinction between negative and positive (Gregory and Coretta vs. Hilary and Fredrico) were the children's use of the words *sometimes*, *always*, and *every time* to describe how often the puppets were like them. Almost half of the children who selected the more challenging or negative puppets, Gregory and Coretta, used the words *sometimes*, *always*, or *every time*, whereas children selecting Hilary and Fredrico used these words infrequently. Children selecting Gregory and Coretta used the word *sometimes* a quarter to a third of the time, whereas children choosing Hilary and Fredrico rarely used this word. Social desirability may have also contributed to the children's word choices. One explanation for the disparity in usage between the more negative and positive puppets may be that the children wished to lessen the frequency with which they described themselves negatively.

Demonstrating Altruism

The selection of the two more positive puppets, Fredrico and Hilary, seemed to be related to altruism. Although various situations during the course of the 10-week program displayed all four puppets acting altruistically, the children selecting Coretta or Gregory did not refer to such behavior in their responses. For instance, during one of the vignettes, Gregory supported Coretta by asking her if she wanted him to play the game first so she could watch. Gregory was clearly showing empathy for Coretta's shyness, but the children did not mention this situation or a similar situation during their interviews. Instead, children stated that they were like Hilary because they liked to help people. A few children who chose Fredrico gave the reason that he likes to share.

Empathy and altruism are fundamental aspects of drama. Role-play allowed the children to step in another person's shoes and experience situations from another perspective while simultaneously maintaining a safe distance in their exploration. Role-play also allowed children to imagine and enact changes in their thinking. Discussing how participants learn through drama work, Bolton (1985) stated,

Learning in drama is essentially a reframing. What knowledge a pupil already has is placed in a new perspective. To take on a role is to detach oneself from what is implicitly understood and to blur temporarily the edges of a given world. It invites modification, adjustment, reshaping, and realignment of concepts already held. Through detachment from experiencing one can look at one's experiencing anew. (p. 156)

Like Bolton, but speaking specifically about puppets, Gendler (1986) concluded in her study that puppets fostered empathy and support among children in a group. In another study, researchers observed how children showed empathy towards characters in a play and how their empathy appeared to be oriented towards the same-gendered character (Bury, Popple, & Barker, 1998). During the *INSIGHTS* program, the facilitators used the puppets as a medium for the children to experience situations from multiple perspectives. In doing so, the children displayed empathy towards others.

The Use of Vignettes and Dilemmas From the Puppet Sessions as Examples

Another interesting trend was that the children who selected the more negative puppets, Gregory and Coretta, were more likely to mention the vignettes than the children who selected the more positive puppets, Fredrico and Hilary. The children who selected the more negative puppets may have felt the need to offer an example of how they were grumpy or shy by relating their response to the classroom sessions. The use of the vignettes when choosing the more negatively viewed puppets may have been to demonstrate that they were not the only one that acts in this manner.

While Bolton referred to the significance of detachment with helping participants see ideas anew in role work, the reflection on vignettes also provided space for the children to examine the puppet's behavior. In general, drama, "while encouraging identification, promotes distance and reflection—key concepts in the

arts and in learning. The arts represent a different way of knowing and responding to the world” (O'Neill, 1983, p. 120). More specifically, puppets allow the children to safely portray their emotions through the puppets. In this state of make-believe play, the children feel that the puppets are the ones doing the actions (Gendler, 1986). As an extension of this belief, the children may have used examples from the puppet's stories to create a safe distance from their behaviors.

Regardless, whether the children who chose the negative puppets were more likely to refer to the vignettes, it was evident that they remembered the vignettes even after a significant period of time had passed. After a 2-week break, I was concerned that the children might have forgotten the puppets' vignettes that we had covered over the 4 weeks preceding the break. I brought out each puppet and, to my surprise, the children were able to retell each of the puppets' vignettes. The teachers were also astonished because they, themselves, were not able to recall all four vignettes.

It was also clear that even after several months had passed, the puppets' vignettes are still vivid in their memories. In the current *INSIGHTS* study, the child longitudinal study, we conducted two 10-week programs with the children over the course of 2 years. Even after taking a break from working with the puppets for almost 5 months, the children were able to recall the puppets and their stories. The children's ability to remember the puppets and their stories

demonstrates the power of puppetry and role play in the engagement of children.

As Bolton and Heathcote (1999) stated,

Effectively, in using this method (role play) you are endowing your class with a role that increased their power or ability to engage with the material being learnt or studied. From being your students, trainees, or pupils, by adopting their collective role they are *repositioning themselves* for engaging more effectively with the subject matter. (p. x, emphasis original)

The teachers' astonishment regarding the detail in which the children were able to recall the stories emphasizes how the children had exceeded their teachers' expectations through the use of puppetry and drama. Courtney (1974) addresses the notion of participants' engagement further, discussing how merging dramatic action with emotion creates longer retention.

The knowledge we obtain through such action becomes highly significant to us. We have experienced it, been through it, re-lived it. Thus we *feel* it; it has emotional significance for us and will be remembered. In such a way, dramatic learning is highly effective, mingling cognition and feeling into a whole experience that deeply touches the self. (p. 6, emphasis original)

Kelly (1999) supports Courtney's assertion in that drama "not only motivates and accelerates, but (it) even *deepens* the quality of learning" (p. 92, emphasis original). Drama creates the recognition of relationships where "memory ceases to be rote . . . a more profound 'knowing' occurs" (Kelly, 1999, p. 92). Courtney also discusses the impact of improvisation as a process that fosters children's ability to recognize "the relationship between ideas and to see their mutual *interaction* and that, through impersonation and identification" (p. 57, emphasis

original) in that they will have a better understanding of and relationship with the world around them.

“I Like to . . . ”

Another factor that contributed to the notion that children categorized the puppets as more negative and positive was the use of the phrase, *I like to . . .* With this phrase, the majority of the children were referring to the more positively viewed puppets, Hilary and Fredrico, whereas few responses for Gregory and no responses for Coretta included this phrase. For example, a child selecting Hilary stated, “*Because I like to work really hard and I always do my best when I work.*” Another child who chose Fredrico as most like him responded, “*Because I like to meet other people and play with them, and I’m very friendly.*”

Misinterpretation of the Question

Referring to the Puppet as a Real Person

While interpreting the responses, an uncertainty of the children’s understanding of the interview question was evident. When some children referenced the puppet as a real person by stating, for example, that the puppet was their friend, it is probable that they also misunderstood the question. For instance, the answer, “*Because I like her. Because I am her friend.*” more appropriately corresponded to the question, “Why do you like or admire [selected puppet]?” instead of the interview question, “Why do you think you are like [selected

puppet]?”

The children’s ability to suspend reality and immerse themselves in the puppets’ world was evident during and outside the classroom sessions. Some children would stop me in the hallway and ask how a particular puppet was doing. Others, during a session, would ask if the other puppets in my puppet bag were asleep. The children’s immersion in the puppet world was made even clearer after the third or fourth session when some realized that I was doing the talking, not the puppet. Other researchers have also observed how children view puppets as their friends and develop a bond with them (Gendler, 1986; McCaslin, 2006). This suspension of reality allowed the children to feel that the puppet was “real.”

Who Is the Subject of the Interview: The Puppet, Me, or Both?

Children who referred to the more positively viewed puppets were more likely to use the puppet as the subject than children selecting the more negatively viewed puppets. The fact that a higher proportion of children referred to the more positive puppets as the subject also indicated that the children may have misunderstood the questions and may have been responding to, “Why do you like or admire [selected puppet]?” Because of this, I conducted additional passes of the data. When answering the interview question, “Why do you think you are like [name of puppet selected]?” responses such as, “*because Fredrico is friendly*” seemed appropriate. However, the question could have been misinterpreted because this response also corresponded to the question, “Why do you like or

admire [name of selected puppet]?” Further inquiry revealed that almost half of the responses for Fredrico and over a third of the responses for Hilary incorporated the puppet as the subject, whereas responses referring to the negative puppets as the subject were infrequent. This casts doubt on the children’s comprehension of the question.

Referencing the Future: I Want to, I Will

Another instance in which the children could have misunderstood the questions was when they referenced the future with responses such as “*because I wanna be everyone’s friend.*” Again, these responses revealed that the child may not have comprehended the question that was asked. Instead, they might have understood it as, “Why do you like or admire [name of selected puppet]?” and in response they might have stated how they themselves would like to be. Gendler (1986) stated that “children’s choices often reflect unconscious needs, identifications, concerns and feelings” (p. 46). Previous studies support the notion that children may be limited in terms of self-reporting and that interviews must be structured to adjust to their cognitive development (Arseneault et al., 2005; Cugmas, 2002; Van den Bergh & De Rycke, 2003).

Responses Unique to the Puppet

One particular characteristic that surfaced on several occasions when the children described why they were like Coretta were the terms *performance*,

dance, and *being on stage* as examples of when they were shy. I wondered whether these children had the same facilitator who may have either used an example of being shy when performing on stage or set up the situation where the children solved the dilemmas in front of the class by creating a stage area and calling it a performance. After checking the data, however, I found that the four children attended three different schools, each with a different facilitator. It was interesting that children from different schools referenced shyness when performing as a reason why they were like Coretta because it was not an example given by Coretta on the DVD.

Summary

The use of drama allowed the children to explore how the puppets handle situations differently. For instance, the children recognized that Coretta would handle a field trip to the zoo very differently than Hilary, Fredrico, or Gregory. Coretta would not want to go because she is scared to try new things. Fredrico, on the other hand, loves to visit different places and would be excited to go on the trip. Hilary would want to adequately prepare herself for the trip by learning about the different exhibits and would also want to visit. Gregory, similar to his feelings about going to the museum, would complain about going on the trip. The exploration of the puppets' temperament gave further insight into how children can be similar or different from the puppets; therefore the opportunity to use the

puppets over a 10-week period influenced how the children answered the interview questions.

The children's responses provided unique insight into their perceptions of the puppets, how they related to them, and how they interpreted the interview. While gender and social desirability clearly influenced the children's puppet selections, in interviews their recollection of the puppets' stories, even after a long break, indicated that the puppets engaged the children and left lasting impressions. An analysis of the children's responses also led to the conclusion that some children might have misunderstood the interview questions. These findings assisted in interpreting the level of agreement between the children's and adults' responses.

Parent–Child, Teacher–Child and Multi–Informant Agreement by Temperament Dimension

Low to moderate agreement between parents, teachers, and the children was found for all four temperament dimensions. The results are consistent with previous research that indicated that reports by informants who observe the children from different settings are only mildly correlated with children's self-reports (Achenbach et al., 1987; Field & Greenberg, 1982; H. Goldsmith & Rothbart, 1991). The highest adult–child agreement for task persistence and activity was among the teachers and the children who selected Gregory as most like them. Also, children who chose Gregory had the highest child–teacher–parent

agreement for both task persistence and activity. Children selecting Coretta had the lowest adult–child agreement with teachers for negative reactivity and withdrawal. The lowest child–parent–teacher agreement was also on negative reactivity for children selecting Coretta.

The following section highlights instances of how each salient temperament dimension was portrayed by the puppets during the classroom discussions, and given these examples, how they influenced the children’s selection of the puppets that were most like them. Next, the section addresses the results from a chi-square analysis of the parents’ and teachers’ responses for each puppet-temperament profile. In addition, correlations were also performed to examine whether the agreement between parents and teachers reached statistical significance. The results from these analyses are also compared with previous studies.

Negative Reactivity

Coretta’s and Gregory’s high negative reactivity was shown throughout the program in a number of ways. Coretta did not want to come out of the puppet bag because she is shy and reacts very strongly to the request by getting upset. Gregory also displays his high negative reactivity by refusing to come out of the bag. He continues to complain about not wanting to go to the museum or complete his homework during the vignette. During one of the dilemmas, Gregory is upset because he wants to listen to a mammals tape and displays his anger by,

pushing Fredrico, who also wants to listen to the tape, instead of using his words.

Hilary and Fredrico are low in negative reactivity; they react differently to similar situations. Even though Hilary wants to stay in the puppet bag and finish her homework, she is pleasant when meeting the children. She is excited to go on the field trip and completes her homework about what she learned at the museum. Fredrico, also low in withdrawal, looks forward to meeting the children and does not need any persuading to come out of the puppet bag. In another instance, he displays his low negative reactivity after his mother scolds him for running around in a toy store. Fredrico does not get upset and instead apologizes to his mother. These are only a handful of examples of how the puppets' negative reactivity was revealed during the classroom sessions. The children chose which puppets they were most like from these interactions with the puppets.

Earlier in the discussion section, interpretations were made regarding the discrepancies between the children selecting the more positive and the more negative puppets; specifically, the more positive puppets might have been selected more often due to the social-desirability factor. One may extrapolate that the children choosing the more negative puppets were not affected by social desirability, therefore reporting a more accurate perception of themselves. Hwang (2002) also stated that children's associations with fear and anger were closer to the norm than smiling or laughter. Given this finding, one might assume that the children who selected the more negative puppets would share higher levels of agreement with their parents and teachers. On the contrary, this speculation was

not supported by the findings for Coretta.

The lowest adult–child agreement was associated with children selecting Coretta, whose salient temperament dimension was high in both withdrawal and negative reactivity. Overall, both teacher–child and parent–child agreements scored the lowest in negative reactivity with children who selected Coretta as being most like them. Also, multi-informant agreement between parents and teachers was the lowest for the dimension of high negative reactivity for children who selected Coretta. One possible reason for the discrepancy in the rater agreement may have to do with the fact that all of the children who selected Coretta when describing themselves referenced high withdrawal as opposed to high negative reactivity as their reason for why they were like Coretta. Children may have identified more strongly with Coretta’s high withdrawal than her high negative reactivity and may have chosen her regardless of their own levels of negative reactivity.

For the remaining three puppets, Gregory, Hilary, and Fredrico, teacher–child and parent–child agreement fared much better, not falling below 43% for negative reactivity. Teacher–parent agreement tended to be higher among the more positive puppets (Hilary and Fredrico), who are low in negative reactivity, whereas the score was not in as strong agreement for children who selected Gregory and Coretta, who are high in negative reactivity. The correlation coefficients between the parents’ and teachers’ scores also were similar to the results from the chi-square analysis. The correlational analyses were statistically

significant for Hilary and Fredrico's negative reactivity but not for Gregory and Coretta.

Hwang (2002), Bisceglia (2007), and Roth et al. (2004) found that children and adults displayed little to no agreement in a temperament dimension similar to negative reactivity, whereas Measelle et al. (2005) presented findings that indicated that children's reports showed moderate agreement with reports from the adult informants. One possible explanation for the lack of agreement may be related to the fact that the children were being assessed in two different environments and by two types of informants – school versus home and teacher versus parent. Some children may be more skilled at self-regulation in different situations and able to suppress their negative reactivity, and therefore high negative reactivity was not reported by one of the informants.

Task Persistence

The children learned that Gregory is low in task persistence, whereas Hilary is high in task persistence. Homework is challenging for Gregory to finish because he has a difficult time focusing on one activity, whereas Hilary wants to go back into the puppet bag because she wants to make sure she finished all of her homework. The largest discrepancy in agreement between teacher–child and parent–child percentages occurred with the children who selected Gregory, who is low in task persistence. The teacher–child agreement for low task persistence for children selecting Gregory was the highest of all four temperament dimensions,

whereas parent–child agreement in this case was considerably lower. One possibility may be that teachers have more opportunity to observe children working (or, in this case, not working) on assignments. They also have a broader basis of comparison than parents because the school environment allows teachers to observe and compare many students.

Parent–child agreement and teacher–child agreement for children who chose Hilary were not as discrepant. The assumption that teachers are better able to identify children who selected Gregory (whose character is low in task persistence) may apply only to observing children with low task persistence and not children who are high in task persistence. The correlational analysis between parents and teachers for task persistence for children selecting Gregory and Hilary reached statistical significance, although the significance level was stronger for children selecting Hilary. Hwang (2002) and Measelle et al. (2005) found low to moderate agreement levels between child and adult informants in an area similar to the temperament dimension of task persistence.

Withdrawal

Coretta’s temperament of high withdrawal is very evident to the class when she does not come out of the puppet bag. When she does come out, she first peeks out from the bag and looks around before she comes out to sit by the facilitator. Fredrico’s entrance is the exact opposite of Coretta’s because he is low in withdrawal. He practically leaps out of the bag when the facilitator introduces

him. At Michael's birthday party, he is really excited to play the games whereas Coretta needs some coaxing.

It was clear from the children's responses that those who chose Coretta did so because they strongly identified with her high withdrawal. Almost all the children who selected Coretta referred to high withdrawal as the reason that they were like her. However, teachers' classifications of children being high in withdrawal had the lowest agreement with the children's self-reports among all the temperament dimensions. Parents' ratings of high withdrawal were only slightly higher than the teacher's ratings. Agreement between parents and teachers did not reach statistical significance. Parent-child and teacher-child agreement on low withdrawal for children who selected Fredrico was moderate. Agreement between teachers and parents was relatively low but did reach statistical significance. Findings from other studies indicate low to moderate agreement on a temperament dimensions similar to withdrawal (Brown et al., 2008; Hwang, 2002; Measelle et al., 2005). Other studies found no correlation between child and adult informants (Bisceglia, 2007; Roth et al., 2004).

A possible reason for the low level of agreement on high withdrawal between parents and teachers may be related to the finding that parents and teachers often overlook or underreport high withdrawal in children. Specifically, Spooner and Evans (2005) found that children were more accurate reporters of shyness; children who self-reported as shy but were not reported as shy by their parents and teachers had lower self-esteem and self-perceptions. Other findings

suggest that children's self-reports on internalizing states are more accurate than their parents' and teachers' ratings (Epkins, 1993; Smith, 2007). Studies have also shown that child-parent agreement on internalizing states is low (Grills & Ollendick, 2002; Hwang, 2002). Yet another study found that children were in concordance with observers rather than their parents and teachers and seemed more able to accurately assess their sadness and anxiety than their parents and teachers (Measelle et al., 2005).

Activity

During the sessions, Gregory can never sit still. He is always wiggling and needs reminders from the facilitator to stay seated. He is high in activity. Hilary, on the other hand, is low in activity and does not need prompting.

Teachers' reports on both high and low activity levels for Gregory and Hilary were among the highest in agreement of all the puppets' temperament dimensions by both parents and teachers. Parent responses indicated higher agreement with children who chose Gregory than children who selected Hilary as being most like them. Statistically significant agreement was not obtained between parents and teachers of children who selected Gregory. Related research found little to no agreement for activity levels between teachers and parents (Hwang, 2002; Roth et al., 2004).

Multi-Informant Agreement

Studies examining data from young children, clinicians, social workers, teachers, parents, and outside observers have indicated low levels of parent-child agreement when assessing the child in different environments (Achenbach et al., 1987). The consistent finding of low interrater agreement has been addressed by other researchers. These studies indicate that poor interrater agreement may not mean that one is accurate and the other is invalid. An alternative conclusion recognizes that informants often report from different contexts, offering a unique perspective (Achenbach et al., 1987; Arseneault et al., 2005; De Los Reyes & Kazdin, 2005; Roth et al., 2004). Achenbach et al. (1987) suggested that low correlations among multiple informants should not be seen as an inaccurate form of measurement nor as an indication that one informant is more valid than the other. They concluded that discrepancies among informants offer valuable insights into the child's functioning in different contexts. Indeed, the diversity of ratings of child temperament and behavior may indicate a need for different interventions, a change in the perception of the child or adult, or modifications in the interactions between the adult informant and child. Bisceglia (2007) added that informants who show high levels of agreement may be viewed as interchangeable, whereas informants who have discordant ratings may provide a different perspective that is valuable to interpreting the findings.

Strengths and Limitations

The following section addresses the strengths and limitations of this study. Measuring children's self-reports through an educational-theatre lens provided a perspective that has rarely been addressed in the literature. This study provided a unique perspective from both children's self-reports of their temperament and an educational theatre standpoint. Research that has implemented puppetry as a form of measurement has generally concentrated on the subject area being measured and has not addressed the unique methodological factor of using puppets. Traditionally, research in the field of educational theatre primarily encompasses studying what transpired as the drama unfolds in the classroom, theatre, or community. This study analyzes the program through an educational theatre perspective by integrating role play and educational theatre strategies with a methodology for assessing children's self-reports. Documenting the influence of educational theatre from the standpoint of how educational theatre impacts children's self reports emphasizes that its impact can extend beyond the traditional settings.

Another unique aspect of this study was the examination of educational theatre from both quantitative and qualitative paradigms. Much of the research in educational theatre has focused on qualitative methods. Quantitative research can help to highlight patterns that may have been overlooked or unnoticed by qualitative approaches. Through quantitative research, clear trends were assessed

around the children's puppet selections. The qualitative and quantitative results complimented each other, providing a deeper understanding of the children's perceptions of themselves through the use of an educational theatre puppet program than could have been obtained with only one method.

Another unique element of this program and therefore this study is that the children were able to familiarize themselves with the puppets through a 10-week educational theatre workshop before being interviewed. In existing research studies, the children's interaction with puppets was limited to the interview. This preliminary study explores the unique aspect of the children interacting with and learning about the puppets over an extended period of time, an approach that was previously unexplored in the field.

Examining the educational theatre puppet session with children through the examination of the children's interviews provided only one aspect of the program. Investigating the experiences of the facilitators, teachers, and students through a qualitative lens may offer insight that is beneficial to the field of educational theatre. One aspect worthy of investigation includes measuring the fidelity of facilitators in conducting the children's session. Research conducted on solving dilemmas from perspectives of the students, teachers, and outside observers may also provide substantial insight into the children's learning experiences.

Implications for Educational Theatre and Children's Self-Reports of Temperament

The *INSIGHTS* puppet interview provided a valuable peek into the children's perceptions of themselves and the use of puppets through an educational theatre medium as a self-reporting method. Researchers assert that it is important to include children in self-reporting assessments given that children have a unique perspective of themselves. Studies have shown that children may be better reporters of their own shyness and anxiety than parents or teachers (DiBartolo & Grills, 2006; Ialongo et al., 1994; Luby et al., 2007; Measelle et al., 2005; Spooner & Evans, 2005). The results from this study are consistent with these findings. Parent-child, teacher-child and parent-teacher agreement were lowest for children who chose Coretta the Cautious. This may be an indication of misreporting or misunderstanding by adult informants rather than over-reporting by children.

From an educational theatre standpoint, the technique of using puppets as a self-reporting method produced several findings. It was evident from the interviews and workshops in the classroom that the children were impacted by the program. I was greeted with enthusiasm every time they saw me, whether it was in the hallway, classroom, or their community. The puppets were an exciting method for the children to learn and grow. The children were able to recall the puppets' stories and dilemmas with ease when the stories were reviewed in the class and during the interviews. It was clear that incorporating creative play and

drama allowed the children to explore their emotions and situations that occur in the classroom. Through the use of improvisation and role play, the children learned strategies to solve the puppets, and later, their own dilemmas. They also developed a sense of empathy for their fellow classmates.

Gender played a significant role in identification. The children tended to gravitate towards the same-gendered puppets. They also perceived themselves (or desired) to be the more socially desirable puppets. The puppet interviews and the puppet program allowed us to achieve greater insight into the children's perception of themselves. The children's understanding of themselves may differ from their parents and teachers; therefore, when studying children, asking the children themselves is an important part of the picture.

The findings from this study also support the notion that self-reporting methods for children possess a unique set of challenges. Interview construction, in particular ensuring children's understanding of the questions, is crucial in examining the validity of the children's responses. This study raised questions about the children's comprehension of the interview. The following section highlights lessons learned and recommendations for the fields of educational theatre and children's self-reports.

Lessons Learned and Recommendations for Using Puppets

Through this study, it was evident that the *INSIGHTS* puppet interview was not adequately structured to obtain valid self-reports of children's perceptions

of their temperaments. These findings provide valuable information about using self-reports with young children and inform the future direction of the *INSIGHTS* program and the use of educational theatre in children's temperament research. The following consists of five recommendations for constructing an *INSIGHTS* puppet interview for future studies. Each recommendation consists of the finding from the analysis, the rationale for the finding, and suggestions on how to solve the problem (Appendix J summarizes a proposed interview structure).

1. Finding: Not all children's temperaments fit precisely into one of the four temperament profiles. The four puppets limited the children to select a temperament profile rather than allowing the children to rate themselves for each temperament dimension.

Rationale: Altering the interview to ask multiple questions pertaining to each temperament dimension may prove beneficial. The children's responses clearly indicated that they identified more strongly with one dimension than others. Asking the children to identify one puppet that was most like them was not sensitive enough to identify the specific temperament dimensions. Also, social desirability played a role in the children's responses and needs to be taken into account when working with and constructing self-report methods for young children. Utilizing multiple questions for each temperament dimension may also limit the influence of social desirability in the responses.

Recommendation: Adjusting the puppet interview to measure the four temperament dimensions individually would provide an opportunity for children to identify the level for each temperament dimension. I recommend including multiple items for each temperament dimension to measure their internal consistency and compare them with the responses from parents and teachers.

2. Finding: The structure of the puppet interview differed from the TSATI/SATI.

Rationale: Incorporating the same questions from the TSAIT/SATI for the puppet interview allowed me to compare the same items. This may increase the validity of the agreement (Roth et al., 2004).

Recommendation: Revise the items from the TSATI/SATI that are specific to the four temperament dimensions for the puppet interview.

3. Finding: Children were influenced by social desirability and tended to select the more “positive” puppet.

Rationale: Cugmas (2002) stated that socially desirable answers tend to be minimized when structuring interviews with bipolar answers (both positive and negative poles).

Recommendation: Follow each item with a question that requires a bipolar response. For example, to measure negative reactivity, statements might include, “When I don’t get my way, I stay calm.” and “When I don’t get my way, I get mad.” For withdrawal, “When I go to

new places, I get scared.” and “When I go to new places, I don’t get scared.” Statements such as, “When my schoolwork is hard, I keep trying.” and “When my schoolwork is hard, I give up.” could measure task persistence. To measure activity, statements could include, “When I am going somewhere, I like to run or skip.” and “When I am going somewhere, I like to walk.”

4. Finding: The analysis of the children’s responses indicated that some may have misunderstood the interview question of which puppet was most like them.

Rationale: Create a more valid assessment to more accurately measure children’s perceptions of their temperament.

Recommendation: Replace the interview question “Who are you most like?” with one that requires a bipolar response. Some examples might be, “What about you?” “Are you more like [name of puppet] or like [name of puppet]?” or “Do you act more like [name of puppet] or like [name of puppet]?”

5. Finding: Children at that developmental stage tend to be more influenced by gender.

Rationale: Children strongly identifying with their own gender also affected the interview responses. When implementing a puppet-interview method or an educational theatre program, attention also needs to be focused on the gender of the puppets, ensuring that all

children are able to relate to them. Giving the children an opportunity to select a puppet that is both similar in temperament and of the same gender may create a more valid measurement tool.

Recommendation: Use same-gendered puppets (i.e., Gretchen the Grumpy, Hilary the Hard Worker, Felicity the Friendly, and Coretta the Cautious for girls; and Gregory, Henry, Fredrico, and Carlos for boys). In this *INSIGHTS* study, the children's program introduced four puppets of opposite genders in the second year. The children met Gretchen the Grumpy, Henry the Hard Worker, Felicity the Friendly, and Carlos the Cautious. Examples are shown in Appendix I.

Although a great deal of work is needed to further develop a tool to measure the children's experiences, the anecdotal stories provide support that puppets engage and teach children about themselves and about other people. The use of puppetry created a safe environment for children to experiment and express themselves. The interview responses from the children clearly indicate that they remembered and were impacted by the puppets and their temperaments. Using puppets through an educational theatre medium is an effective method for children to recall stories and situations.

The educational theatre literature has focused a great deal on the classroom and community-oriented work. In contrast, little attention has been paid to the use of educational theatre as a means to further understand children's social-emotional development through the use of a self-reporting method.

Educational theatre can be a valuable medium in the classroom and in assessments of children's self-reports. More research is warranted on the use of puppets as both an educational-theatre medium and a self-reporting method.

I end with a simple, yet telling quote from a child describing the *INSIGHTS* puppets to his mom. He finished by exclaiming, "*The puppets are the only ones that understand me!*" I conclude by saying that through the puppets, the children felt understood, developed empathy, were able to express themselves, and learned how to solve dilemmas. The children allowed the puppets into their world. In return, using the puppets provided adults with insight into the children's world.

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APPENDIX A

SAMPLE CLASSROOM SESSION

Session 4: Gregory the Grumpy Puppet (High Maintenance)

Session Summary

- ✓ Briefly review Session 3:
 - Flash cards
 - Hilary
 - Workbooks
 - Magical Observations Glasses
- ✓ Introduce Gregory: role play between Gregory and facilitator.
- ✓ Watch Gregory's day.
- ✓ Compare and contrast Gregory with Fredrico, Coretta and Hilary.
- ✓ Discuss what was easy and challenging for Gregory, clearly making a distinction between grouchiness and "being bad."
- ✓ Put Gregory away.
- ✓ Go over flash cards, coloring book and pencil case/pencil.
- ✓ Finish with the INSIGHTS song.

Materials Needed:

- ☐ Gregory the Puppet
- ☐ Puppet bag
- ☐ Flash Cards:
 - Gregory
 - grumpy
- ☐ INSIGHTS into Children's Temperament DVD
- ☐ INSIGHTS Workbook—Gregory Worksheet
- ☐ Pretend observation glasses
- ☐ Purple pencils
- ☐ Video/TV equipment set up
- ☐ Seating chart (for noting children participating in INSIGHTS - optional)
- ☐ Classroom Workshop Attendance and Session Log
- ☐ Classroom Workshop Teacher Feedback

Gregory the Grumpy - High Maintenance		
Profile	Description	Children's description on the video
<ul style="list-style-type: none"> • High in negative reactivity • Low in task persistence • High in activity 	<ul style="list-style-type: none"> • Distractible • Short attention span • Negative • Moody • Wiggly • Energetic 	<ul style="list-style-type: none"> • Different: It will be challenging for him say nice and to be nice like Fredrico • Easy: He's honest. He says no when he doesn't want to do something. To say no to things and walk away. • Challenging: If someone asked him to do something that he didn't want to do it would be hard for him to agree. Gregory is grumpy, it's hard for him to be good.

Introduction/Review

Facilitator: Hello, children. It's good to see you again. Tell me what happened when you used your magical glasses to observe people. Did you find any Corettas, Fredricos, or Hilarys?

Now remember . . .

Now, can girls be friendly like Fredrico?

Can boys be hardworking like Hilary?

Can girls be grumpy like Gregory?

Can boys be cautious like Coretta?

Children: *(Children respond.)*

Facilitator: Do you remember the puppet that we brought here last week? Tell me about her.

Facilitator: Let's see how the children in the video say.

<i>Play Session #4</i>	<i>Stop at 1:35</i>
<i>Description:</i>	<i>When to stop the video:</i>

Review from last week

Fredrico says to stop the video

Facilitator: Let's look at some of your workbook sheets to see how you described Hilary. (*Kareem wrote that...*).

Share children's workbooks.

Children: (*Children respond.*)

Facilitator: Today I've brought a fourth puppet. His name is Gregory. He's glad to be here today so that he can speak with you.

Facilitator: OK, Gregory, it's time to come out now.

Gregory: (*in a crabby tone.*) I don't understand why I have to come today. Don't I go to my own school enough without having to come to this school too?

Bring Gregory out.

Facilitator: Gregory, when Coretta, Fredrico, and Hilary were here, they showed us a little movie about one of their days. We were wondering whether you would be willing to do that, too.

Gregory: Oh, I guess so.

Facilitator: Before we watch Gregory's day, he sometimes may use words that we shouldn't use, like "dumb." Now class, is it okay to say "dumb"?

Children: Noooooo!

Facilitator: Okay, let's watch Gregory's day.

Play Session #4

Stop at 4:00

Description:	When to stop the video:
<i>Gregory's day</i>	<i>Gregory starts snoring</i>

<p>Gregory's day follows the same outline as Hilary's:</p> <ul style="list-style-type: none"> ✓ Getting up. ✓ At school - A group art project at school. ✓ At the museum - A field trip. ✓ Doing homework. ✓ At bedtime - review of the day. <p>Gregory is grumpy in each situation. He needs reminders to get his work done and to sit still.</p>

Facilitator: How would you describe Gregory?

Describe Gregory.

Children: *(Describe Gregory as grumpy. Be sure to discuss the difference between grumpy and mean.)*

Facilitator: How is he different from the other puppets?

Facilitator: What is easy for Gregory?

Children: *(Being honest. Saying what he thinks.)*

Facilitator: What is challenging?

Children: *(Not complaining so much.)*

Facilitator: Let's see what the children in the video say.

<i>Play Session #4</i>	<i>Stop at 5:10</i>
Description:	When to stop the video:
<i>Class discusses what is easy and challenging for Gregory</i>	<i>Gregory says that he's unique too</i>

Facilitator: Gregory and I have to go, but before we do, let's remind ourselves: Fredrico is UNIQUE. Coretta is UNIQUE too. Hilary is UNIQUE too. Gregory is unique too. I'm UNIQUE too (*points to self*). Each one of us is unique.

Facilitator: Gregory has to go. Please say goodbye to Gregory.

Children & Gregory: Say goodbye.

Put Gregory away.

IF TIME: Review flash cards from this and last week.

Show page in workbook. Give out pencils.

Facilitator: During the week, [teacher's name] will ask you to do another workbook sheet so that you can tell us what you learned about Gregory. And to help you remember Gregory, I'm going to give you a pencil. What color do you think it is? (purple).

Facilitator: Next week, I'm going to bring all of the puppets. Don't forget to use your observation glasses again this week. Remember, they are magical glasses. Use them to help you see whether you can find family members who are like Hilary or Coretta or Fredrico or Gregory.

Facilitator: Let's end with the INSIGHTS song:

<i>Play Session #4</i>	
<i>Description:</i>	<i>When to stop the video:</i>
<i>Children sing song</i>	<i>At the end of the video</i>

Facilitator: I'm unique (clap, clap). You're unique (clap, clap). We're all unique (clap, clap). And that's just fine. I'm unique (clap, clap). You're unique (clap, clap). We're all unique (clap, clap). And that's just fine. (What?) And that's just fine. (What?) And that's just fine.

Session 5: Dilemma #1

Hilary Gets Her Feelings Hurt

Session Summary

- ✓ Review puppets and their temperaments.
- ✓ Go over workbook assignment.
- ✓ Review magical observation glasses.
- ✓ Define steps in problem-solving.
- ✓ Watch Hilary's dilemma.
- ✓ Recognize the dilemma.
- ✓ Students identify the potential positive and negative consequences of dealing with a dilemma.
- ✓ **Role play between puppet and Facilitator.**
- ✓ **Role-play other solutions to the dilemma. Have a student come up if you feel that the class is ready.**
- ✓ Explain workbook assignment.
- ✓ Finish with INSIGHTS song.

Materials Needed:

- ☐ All puppets
- ☐ Small hand puppets
- ☐ Traffic light or Traffic Light
- ☐ Vignette on the DVD
- ☐ Flash Cards: ▪ dilemma ▪ recognize
- ☐ INSIGHTS into Children's Temperament DVD,
- ☐ Session 5: Dilemma # 1INSIGHTS Workbook sheet — Hilary Gets Her Feelings Hurt
- ☐ Video/TV equipment set up
- ☐ Seating chart (to note children in INSIGHTS - optional)
- ☐ Classroom Workshop Attendance and Session Log
- ☐ Classroom Workshop Teacher Feedback Form

Review the puppets by bringing each one out of the bag.

Facilitator: *(bring out Fredrico.)* Do you remember his name? Tell me about him.

(continue to do this for all 4 puppets.)

Facilitator: Lets see how the children in the video say.

<i>Play Session #5</i>	
<i>Description:</i>	<i>When to stop the video:</i>
<i>Class reviews the puppets& workbook sheets</i>	<i>Hilary instructs us to pause the video</i>

Share children's workbooks.

Facilitator: Let's look at some of your workbook sheets to see how you described

Gregory. *(Kareem wrote that...).*

Children: *(Children respond.)*

Ask the class what they observed with their magical observation glasses.

Facilitator: I also asked you to look at your family members with your magical observation glasses. *(show magical glasses with your hands.)* Tell me what happened when you used your magical glasses to observe people. Did you find any Corettas, Fredricos, Gregorys or Hilarys?

Now remember . . .

Now, can girls be friendly like Fredrico?

Can boys be hardworking like Hilary?

Can girls be grumpy like Gregory?

Can boys be cautious like Coretta?

Children: *(Children respond.)*

Facilitator: Let's see how other children observed when they used their magical glasses. And then Coretta is going to talk about dilemmas. Let's watch the movie and find out what a dilemma is all about.

<i>Play Session #5</i>	
<i>Description:</i>	<i>When to stop the video:</i>
<i>Hilary's dilemma:</i> Hilary wants to play with Imani but Imani says no. Imani tells Hilary that she's a teacher's pet and that nobody likes her.	<i>Continue the vignette until AFTER Gregory says "STOP, Recognize the dilemma."</i>

Introduce how to solve a dilemma.

Facilitator: A dilemma means having a problem.
The first thing we need to do is to STOP and recognize a dilemma.

What does recognize mean? (to look, find out what is the dilemma.)

(Show hand gesture. Have children repeat, "Stop, recognize the dilemma." with you.)

Children: *(Children respond.)*

Facilitator: We first need to recognize the dilemma. That means we have ask ourselves, "What is the dilemma?"

Recognize the dilemma. Bring out small Hilary to ask for the class's help.

Hilary has a dilemma and wants to ask for your help in solving the dilemma.

This Hilary is smaller than the Hilary that you met before.

Hilary! Hilary! Why don't you come out and ask the class for help.

Hilary: Did you all watch the video? What was my dilemma? What was challenging for me?

Children: *(Children respond.)*

(PROMPT: "Hilary had a dilemma. What was her dilemma?" "What happened in the video?")

<i>Play Session #5</i>	
<i>Description:</i>	<i>When to stop the video:</i>
<i>Section about Recognizing a dilemma and the beginning of Think and Plan</i>	<i>Continue the vignette until Gregory asks for suggests for Hilary.</i>

Think and Plan. As the class for suggestions to solve the dilemma.

Hilary: What should I do?

Facilitator: What suggestions or ideas do you have for Hilary?

Children: *(Children respond.)*

Facilitator: Let's see what suggestions the children in the video had.

Play Session #5

Description:	When to stop the video:
<i>section on the suggestions the class makes for Hilary.</i>	<i>The list of suggestions</i>

Facilitator: What suggestions are "good" and "bad"?

Children: *(Children respond.)*

Play Session #5	
Description:	When to stop the video:
<i>Go, Try it out.</i>	<i>Traffic light - green</i>

Try it out.

Facilitator: Hilary in the video has chosen the suggestion that she thinks is best for her. Why don't we try it out.

I have smaller puppets that are going to help us solve Hilary's dilemma.

(Facilitator brings out the smaller Hilary puppet and acts out the suggestion, using techniques like 1, 2, 3 action, freeze and have puppet ask the class for help. Note: later workshops the children will work out dilemmas in pairs at their desks and in front of the class.)

(If class decided other suggestions were "good," have Hilary try other suggestions out.)

(Put puppets away.)

Review dilemmas and how to solve them.

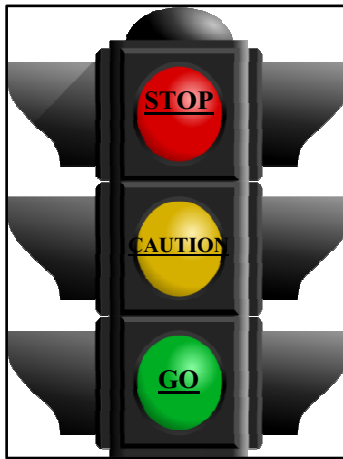
Facilitator: How do you know when you have a dilemma?

What should you do when someone has a dilemma?

How does it feel when you have a dilemma?

Let's review what to do when you have a dilemma.

(Review problem-solving with the help of the traffic light using hand signals.)



RED LIGHT → **STOP** → Recognize the dilemma/problem.

YELLOW LIGHT → **CAUTION** → Think and plan

Discuss whether the plans are:

- Good
- Medium
- Bad

GREEN LIGHT → **GO** → Try it out.

Facilitator: Let's see what the children in the class say about solving dilemmas.

Play Session #5	
Description:	When to stop the video:
<i>Review dilemmas.</i>	<i>Gregory says that he's unique too.</i>

IF TIME: Review flash cards from this and last week.

Show page in workbook.

Facilitator: During the week, think about dilemmas that you have at school. (Direct to both students and teacher.)

Also, [teacher's name] will ask you to do another workbook sheet so that you can tell us what you learned about how to help Hilary solve her dilemma.

Next week, we are going help Coretta solve her dilemma and work on dilemmas that you have at school.

Facilitator: Let's end with the INSIGHTS song:

Play Session #5	
Description:	When to stop the video:
<i>Children sing song</i>	<i>At the end of the video</i>

Facilitator: I'm unique (clap, clap). You're unique (clap, clap). We're all unique (clap, clap). And that's just fine. I'm unique (clap, clap). You're unique (clap, clap). We're all unique (clap, clap). And that's just fine. (What?) And that's just fine. (What?) And that's just fine.

APPENDIX B

PUPPET PROFILES

Gregory the Grumpy



NEGATIVE REACTIVITY	TASK PERSISTENCE	WITHDRAWAL	ACTIVITY
HIGH	HIGH	HIGH WITHDRAWAL	HIGH
x			x
	x		
LOW	LOW	HIGH APPROACH	LOW

Coretta the Cautious



NEGATIVE REACTIVITY	TASK PERSISTENCE	WITHDRAWAL	ACTIVITY
HIGH	HIGH	HIGH WITHDRAWAL	HIGH
x		x	
LOW	LOW	HIGH APPROACH	LOW

Fredrico the Friendly



NEGATIVE REACTIVITY	TASK PERSISTENCE	WITHDRAWAL	ACTIVITY
HIGH	HIGH	HIGH WITHDRAWAL	HIGH
×		×	
LOW	LOW	HIGH APPROACH	LOW

Hilary the Hard Worker



NEGATIVE REACTIVITY	TASK PERSISTENCE	WITHDRAWAL	ACTIVITY
HIGH	HIGH	HIGH WITHDRAWAL	HIGH
	x		
x			x
LOW	LOW	HIGH APPROACH	LOW

APPENDIX C

CONSENT FORMS

NYUSteinhardt

Steinhardt School of Culture, Education, and Human Development

Parent/Guardian Consent to Participate

Dear Parent or Guardian,

Sandee McClowry, PhD, RN, FAAN, a faculty member in Applied Psychology and Teaching & Learning at New York University, has designed a project that compares how two programs influence young children's development. Your child's teacher has already agreed to be part of the project. You and your kindergarten child are also invited to participate. If someone else shares parenting responsibilities with you, he or she may also participate.

There are three parts to this project. The first part involves providing information about you and your child. If you and your child agree to participate, you will be asked to answer questions that will be read to you by a computer while you are wearing headphones. You have the right to skip or not answer any questions you prefer not to answer. The questions will be about your background (age, gender, ethnicity) and about your child's behavior and school. You will also be asked to answer these questions again at the end of your child's kindergarten year and three times while your child is in 1st grade. The questions will take about 20 minutes and you will receive \$20 each time you complete them. Your child also will be tested two times in kindergarten and three times in 1st grade. The tests will take 8 to 30 minutes each time and your child will receive a book or small toy costing less than \$10.

The second part involves ONE OF TWO possible programs. Your child's school will be assigned to ONE of these programs.

Some schools will have the INSIGHTS program. INSIGHTS focuses on children's personalities and their behavior. It consists of 10 weekly meetings with other parents at your school each lasting two hours. One of the meetings will include dinner with the participating teachers. You will receive \$20 for every meeting you attend. If you attend more than 8 meetings in one year you will receive an extra \$50. You can repeat the INSIGHTS program when your child is in 1st grade but you will not receive more than a total compensation of \$250 over the two years for attending the INSIGHTS meetings. The facilitator of the INSIGHTS sessions will be videotaped to assure that all relevant content is included in the meetings. You have the right to review the videotapes and request that all or any portion of the tape be destroyed.

Other schools will have a Read Aloud program. A Read Aloud Coach from NYU will conduct two workshops for parents at your school. Your child's teacher will also be invited to two Read Aloud workshops. Each workshop will last two hours. You will receive \$20 for each workshop you attend and you will receive a set of books to use with your child at home. Teachers will have larger versions of the books at school. The Read Aloud Coach will also conduct a 10-week after school one-hour Read Aloud for your child and the other participating children.

The third part involves your child's teacher. As mentioned, your child's teacher has also agreed to be part of this project. This way, both you and your child's teacher will learn the same information and can work together to help your child. If you agree, we will get information from your child's teacher regarding your child.

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APPENDIX C cont.

Your participation is completely voluntary. You can be sure that your child's education will not be affected by your decision to participate or not. Even if you agree to be part of the project, you may decide to stop at any time. If you withdraw from the study, your child's education will not be affected in any way. There are no known risks associated with your participation in this research beyond those of everyday life.

If you agree to participate, everything you say or report will be kept confidential. A code number rather than your names will be used on all family information so that no one in your family will be identified. While your individual responses will not be identified, reports about what has been learned from the families in the study will be presented at professional meetings and in scientific literature. All of the information that you provide will be destroyed five years after this project is completed. Although you may not receive any direct benefit from participating, the contribution that you provide may help professionals to better help school-age children.

Your responses will be kept confidential with the following exceptions: Although your responses will be kept confidential by the researcher, the researcher cannot guarantee that others participating in the project will do the same. Also, the researcher is required by law to report to the appropriate authorities, suspicion of harm to yourself, children, or to others. Likewise, if during the course of the study it becomes apparent that either you or your child requires therapy for serious mental health problems, your family will be referred to a mental health service.

Thank you for your consideration. You can reach us at (212) 998-9039 if you have any questions. If you have any questions regarding your rights as a research participant, please feel free to contact the University Committee on Activities Involving Human Subjects, New York University, 665 Broadway, 804, New York, NY, 10012, at ask.humansubjects@nyu.edu or (212) 998-4808.

- ☐ I agree to participate in the study described above and give my child permission to participate.
- ☐ I agree to let my child participate in the study described above, but I will not participate.

OR

- ☐ I refuse to let my child participate in the study described above and I will not participate.

Parent/Guardian's Signature

Date

Child's name



APPENDIX D

School-Age Temperament Inventory

Using the scale below, please circle the number that tells you how often your child's behavior is like the behavior described in each item.

	Never	Rarely	Half of the Time	Frequently	Always
	1	2	3	4	5
1. Walks quietly in the house when moving from room to room.	1	2	3	4	5
2. Gets upset when he/she can't find something.	1	2	3	4	5
3. Approaches children his/her age even when he/she doesn't know them.	1	2	3	4	5
4. Switches from one activity to another before finishing the first.	1	2	3	4	5
5. When he/she disagrees, speaks in a quiet and calm manner.	1	2	3	4	5
6. Returns to responsibilities (homework, chores) after friends call or visit.	1	2	3	4	5
7. Smiles or laughs with new adult visitors at home.	1	2	3	4	5
8. Does not complete homework unless reminders are given.	1	2	3	4	5
9. Is shy with adults he/she doesn't know.	1	2	3	4	5
10. Gets mad even when mildly criticized.	1	2	3	4	5
11. Leaves own projects unfinished (drawings, models, crafts, etc.).	1	2	3	4	5
12. Seems nervous or anxious in new situations (visiting relatives, new playmates).	1	2	3	4	5
13. Runs when entering or leaving the house.	1	2	3	4	5
Reacts strongly (cries or complains loudly) to a disappointment or failure.	1	2	3	4	5
15. Gets very frustrated with projects and quits.	1	2	3	4	5
16. Remembers to do homework without being reminded.	1	2	3	4	5
17. Gets angry when teased.	1	2	3	4	5

18. Quits routine household chores before finished.	1	2	3	4	5
19. Bursts loudly into the room when entering.	1	2	3	4	5
20. Gets very frustrated when he/she makes a mistake.	1	2	3	4	5
21. When meeting new children, acts bashful.	1	2	3	4	5
22. Stays with homework until finished.	1	2	3	4	5
23. When angry, yells or snaps at others.	1	2	3	4	5
24. Runs or jumps when going up or down stairs.	1	2	3	4	5
25. Goes back to the task at hand (chore, housework, etc.) after an interruption.	1	2	3	4	5
26. Moody when corrected for misbehavior.	1	2	3	4	5
27. Moves right into a new place (store, theater, playground).	1	2	3	4	5
28. Runs to get where he/she wants to go.	1	2	3	4	5
29. Responds intensely to disapproval (shouts, cries, etc.).	1	2	3	4	5
30. Has difficulty completing assignments (homework, chores, etc.).	1	2	3	4	5
31. Prefers to play with someone he/she already knows rather than meeting someone new.	1	2	3	4	5
32. Makes loud noises when angry (slams doors, bangs objects, shouts, etc.).	1	2	3	4	5
33. Gets upset when there is a change in plans.	1	2	3	4	5
34. Avoids (stays away from, doesn't talk to) new guests or visitors in the home.	1	2	3	4	5
35. Seems to be in a big hurry most of the time.	1	2	3	4	5
36. When an activity is difficult, gives up easily.	1	2	3	4	5
37. Has off days when he/she is moody or cranky.	1	2	3	4	5
38. Seems uncomfortable when at someone's house for the first time.	1	2	3	4	5

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APPENDIX E

Teacher School-Age Temperament Inventory McClowry & Lyons-Thomas, 2009

PID# _____

Directions: Using the scale below, please circle the number that tells how often the child's behavior is like the behavior described in each item.

	NEVER	RARELY	HALF OF THE TIME	FREQUENTLY	ALWAYS
1. Smiles or laughs with new adult visitors.	1	2	3	4	5
2. Approaches children his/her age even when he/she doesn't know them.	1	2	3	4	5
3. Switches from one activity to another before finishing the first.	1	2	3	4	5
4. Returns to responsibilities (written work, projects) after an interruption.	1	2	3	4	5
5. Gets upset when he/she can't find something.	1	2	3	4	5
6. Does not complete seatwork unless reminders are given.	1	2	3	4	5
7. Is shy with adults he/she doesn't know.	1	2	3	4	5
8. Runs to get where he/she wants to go.	1	2	3	4	5
9. Leaves own projects unfinished (drawings, written work, models).	1	2	3	4	5
10. Gets upset when there is a change in plans.	1	2	3	4	5
11. Runs when entering or leaving the building.	1	2	3	4	5
12. Reacts strongly (cries or complains loudly) to a disappointment or failure.	1	2	3	4	5

13. Remembers to do assignments without being reminded.	1	2	3	4	5
14. When meeting new children, acts bashful.	1	2	3	4	5
15. Quits routine classroom assignments before finished.	1	2	3	4	5
16. Bursts loudly into the room when entering.	1	2	3	4	5
17. Gets very frustrated when he/she makes a mistake.	1	2	3	4	5
18. Gets angry when teased.	1	2	3	4	5
19. Stays with seatwork until finished.	1	2	3	4	5
20. When angry, yells or snaps at others.	1	2	3	4	5
21. Runs or jumps when going up or down stairs.	1	2	3	4	5
22. Goes back to the task at hand after an interruption.	1	2	3	4	5
23. Moody when corrected for misbehavior.	1	2	3	4	5
24. Has off days when he/she is moody or cranky.	1	2	3	4	5
25. Responds intensely to disapproval (shouts, cries, etc.).	1	2	3	4	5
26. Has difficulty completing assignments.	1	2	3	4	5
27. Prefers to play with someone he/she already knows rather than meeting someone new.	1	2	3	4	5
28. Makes loud noises when angry (slams doors bangs, objects,	1	2	3	4	5

shouts).

29. Seems nervous or anxious in new situations.	1	2	3	4	5
30. Avoids (stays away from, doesn't talk to) new guests or visitors in the school.	1	2	3	4	5
31. Seems to be in a big hurry most of the time.	1	2	3	4	5
32. Gets mad even when mildly criticized.	1	2	3	4	5
33. Seems uncomfortable when meeting a new student for the first time.	1	2	3	4	5

APPENDIX F

PUPPET INTERVIEW

Today's Date: _____

PID: _____

Interviewer: _____

Cohort: _____

Data Collection: ☐T1 ☐T2 ☐T3 ☐T4 ☐T5

School: _____

Child Puppet Interview Protocol

Child's age: |__| |__|

Child's gender: (00) MALE (01) FEMALE

Child's Teacher ID: _____

Interviewer to child:

Here are pictures of the four puppets that came into your classroom. [*Position each of the graphics in front of the child; while showing the child each of the four graphics in turn, say*]:

Here is Gregory the Grumpy, Hilary the Hard Worker, Fredrico the Friendly, and Coretta the Cautious. [*You may allow the child to name the puppets if he/she initiates doing so; in this case, be sure that each of the puppets is correctly identified.*]

1. Some children tell me that they think they act like one of the puppets. If you could pick one puppet—and only one puppet—who **you are most like**, which one would you choose?

(circle only one response)

Gregory 01

Hilary 02

Fredrico 03

Coretta 04

[*Clarification prompt*]

Which puppet acts most like you?

[*If child gives more than one response*]

Which puppet are you **most** like?

2. Why do you think that you are like _____?

(CHILD'S RESPONSE TO #1)

-
3. Some children would like to have one of the puppets as their best friend. Which puppet would you like to have as **your best friend**? (circle only one response)

Gregory 01
Hilary 02
Fredrico 03
Coretta 04

[If child gives more than one response]

Which puppet would you like to have as your **best** friend?

4. Why would you like to have _____ as your **best** friend?

(CHILD'S RESPONSE TO #3)

5. Which puppet would you **not** like to have as your friend? (circle only one response)

Gregory 01
Hilary 02
Fredrico 03
Coretta 04

[If child gives more than one response]

Which puppet would you **not** like to be friends with?

6. Why would you **not** like to have _____ as your friend?

(CHILD'S RESPONSE TO #5)

APPENDIX G

Descriptive Statistics and Intercorrelations Among Teacher and Parent Reports of Child Temperament

	<i>M</i>	<i>SD</i>	Range	1	2	3	4	5	6	7	8
SATI parent report											
1. Negative reactivity	2.92	.82	1.42-4.83	--	-.52***	.14*	.65***	.25***	-.17**	-.20***	.21***
2. Task persistence	3.50	.77	1.45-5.00		--	-.13*	-.61***	-.18**	.35***	.13*	-.17**
3. Withdrawal	2.58	.69	1.11-4.67			--	-.12	.05	-.09	.21***	-.08
4. Activity	2.75	.80	1.00-5.00				--	.17**	-.18**	-.24***	.27***
TSATI teacher report											
5. Negative reactivity	2.47	.99	1.00-5.00					--	-.51***	.12*	.54***
6. Task persistence	3.20	1.01	1.00-5.00						--	-.07	-.44***
7. Withdrawal	2.62	.69	1.14-4.33							--	-.07
8. Activity	2.29	1.07	1.00-5.00								--

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

APPENDIX H

Number of Times Words Used to Describe the Selected Puppet

Gregory (<i>n</i> = 32)		Hilary (<i>n</i> = 51)		Fredrico (<i>n</i> = 93)		Coretta (<i>n</i> = 38)	
NEGATIVE EMOTIONS	44	WORK RELATED	41	EMOTIONS			
grumpy	11	hard worker	17	excited	5	cautious	6
mad	10	good worker	1	nice	21	shy	29
angry	4	work hard	8	happy	7	scared	2
mean	3	nice work	1	not mean	1	afraid	1
not happy		work too much	1	doesn't get mad	1	nice	1
sad	1	Homework	4			strangers	8
like to be mad	1	study hard	1	ACTION			
		do my work	1	friendly	53		
ACTIONS	13	Work	1	smile	1	speak slowly	1
don't want to	1	a lot of work/work a lot	4	fun	1	don't want to speak	2
hard to concentrate	1	work really hard	2	funny	2	sometimes talk	2
complain	1			laugh	2	don't talk/little	4
can't control self	1	GOOD WORK	5	makes me laugh	1	u have to be quiet	1
don't like to talk to people	1	do work good	1	overexcited	1	stay quiet	1
doesn't listen	2	don't look at papers	1	hyper	1	play first	1
hit/push	5	do the best I can	2	cool	1	don't have friends	1
don't want to be friends	1	Smart	1	behaves good	3	people talk loud	1
				kind	2	scared on stage	4
POSITIVE EMOTIONS	3	ENJOY WORK	2	play	8		
honest	2	love/like to work	2	bright	1	SITUATIONS	
smart	1			share	3	party	3
		EMPATHY	4	helps	1	stay close to mom	1
ACTIONS	2	take care of /helps	4	supports	1	puppet/facilitator	4
jump	1			be everyone's friend	12	vignette/play first	1
play	1	WELL BEHAVED	13	make friends	3	thunder	1
		follow directions	1	meet new people	4		
		good listener/listen	2	likes to go places	3	OTHER	
		being good	1			I'm her friend	1
		behaves/good behavior	2	give out phone #	2	physical	1
		good girl	1	party/game	3		
		doesn't get into trouble	1	slide	1		
		doesn't say I don't want to do this	1	fam & friends impt	1		
		Nice	4	tape vignette	1		
		Friendly	5	don't fight w/ bro	1		

Correct	1	likes to go places	3
knows everything	1	my friend	4
my friend	1	I like him	1

APPENDIX I

NEW *INSIGHTS* PUPPETS FOR THE 2ND YEAR



Carlos
the Cautious

Gretchen
the Grumpy

Felicity
the Friendly

Henry
Hard Worker

APPENDIX J

CSATI - Boy Children's School-Age Temperament Inventory



Gregory
the Grumpy



Henry
the Hard Worker



Fredrico
the Friendly



Carlos
the Cautious

(1)



(2)

In the middle

(3)



When I don't get my way,
I stay calm.

When I don't get my way,
I get mad.

Task Persistence

(1)



(2)

In the middle

(3)



When my schoolwork is hard,
I keep trying.

When my schoolwork is hard,
I give up.

Withdrawal

(1)



(2)

(3)



When I go to new places, I don't get scared	In the middle	When I go to new places, I get scared
--	---------------	--

(1)



(2)

(3)



When I am going somewhere, I like to run or skip.	In the middle	When I am going somewhere, I like to walk.
--	---------------	---

CSATI - Girl
Children's School-Age Temperament Inventory



Gretchen
the Grumpy



Hilary
the Hard Worker



Felicity
the Friendly



Coretta
the Cautious

(1)



(2)

In the middle

(3)



When I don't get my way,
I stay calm.

When I don't get my way,
I get mad.

(1)



(2)

In the middle

(3)



When my schoolwork is hard,
I keep trying.

When my schoolwork is hard,
I give up.

(1)



(2)

(3)



When I go to new places, I don't get scared	In the middle	When I go to new places, I get scared
--	---------------	--

(1)



(2)

(3)



When I am going somewhere,
I like to run or skip.

In the middle

When I am going somewhere,
I like to walk.