

Observing Children's Stress Behaviors in a Kindergarten Classroom

Lori A. Jackson
Georgia State University

Abstract

This study used qualitative methods to determine whether kindergarten children exhibited stress behaviors during the academic work period of the day. Sixteen children (8 male, 8 female) ages 5-6 years were observed. The data consisted of classroom observations by the researcher, open-ended interviews with teachers, artifacts collected from the classroom, and specific work artifacts of the children. Results showed that a total of 9 children exhibited stress behaviors at some point during the observations. Questions raised by this research include what types of classroom environments and teacher characteristics ease or contribute to stress experienced in kindergarten and whether children in developmentally appropriate settings are less likely to exhibit stress behaviors than those in setting where developmentally inappropriate practices are predominant.

Introduction

Stress can be defined as any unusual demand on one's internal or external resources that requires an individual to utilize energy reserves in excess of what would be necessary for dealing with ordinary life events (Hart et al., 1998). Feelings of stress can be exhibited through observable behaviors such as nail biting, thumb or finger sucking, hair twirling, physical hostility, tremors or tics, nervous laughter, helplessness, crying, complaints of physical aches and pains, irritability, outbursts, and withdrawal (Burts, Hart, & Charlesworth, 1992; Jewett, 1997; Fallin, Wallinga, & Coleman, 2001; Zeigart, Kistner, Castro, & Robertson, 2001).

Previous research on children and stress has examined observable stress behaviors in the classroom including examining specific classroom situations or types of activities and how these situations affect individual children (Hart et al., 1998; Hart, Yang, Charlesworth, & Burts, 2003; Ruckman, Burts, & Pierce, 1999; Burts et al., 1992). In one study, kindergarten children were observed for stress behaviors in developmentally appropriate and inappropriate classrooms. Results were examined for effects of race, socioeconomic status (SES), and gender. Significant findings indicated that boys exhibited more stress behaviors than girls, but in developmentally inappropriate classrooms, children overall exhibited more stress than children in developmentally appropriate classrooms. Also, more stress behaviors were exhibited by low SES Black children regardless of classroom type (Burts et al., 1992).

This study was concerned with kindergarten children's observable responses to the daily stressors they may encounter in school. The following questions formed the framework of the study: Do kindergarten children exhibit signs of stress in academic situations? If so, at what specific points or during what specific activities throughout the school day do children exhibit stress behaviors?

Methods

Data sources for this study consisted of naturalistic classroom observations by the researcher, open-ended interviews with teachers, and collection of artifacts from the classroom and specific work artifacts made by the children.

Setting

The study was conducted in a suburban private school in a major metropolitan area of the southeastern United States. The stated mission of the school includes providing an academically structured environment and recognizing the uniqueness of each child. Emphasis is placed on developing the students' mind, body, and spirit, and encouraging a personal commitment to excellence along with the desire for lifelong learning. I chose this setting because I had insider knowledge of the school and its routines and mission for education, in addition to prolonged involvement with the school as an educational consultant.

The observations reported here were conducted in Ms. Walker's kindergarten classroom. Ms. Walker's classroom was chosen, after consulting with the preschool principal, because she was identified as having the most academically oriented classroom of all the kindergartens in the school. I also spent a day observing in each of the other kindergarten classrooms to gain a sense of the daily routines in each.

Data Collection

Data were collected from three sources: participant observations in the classroom, artifacts from the classroom, and informal chats and an interview with the classroom teacher. Triangulation was achieved through analysis and comparison of observations, work samples created during the observation periods, and comments from the teacher regarding the events during the observation.

I conducted systematic observations by means of event sampling over an 8-week period, two to three times a week in the spring of the year, for a total of 18 observations. Each observation period lasted for 1 to 2 hours. I used a checklist of stress-related behaviors for quick reference (see Appendix A).

A semi-structured interview was conducted with Ms. Walker using open-ended questions (see Appendix B for framework interview). I probed Ms. Walker about the behaviors of children during various activities in the school day and about her academic expectations of the children. The interview lasted for approximately 30 minutes. I asked Ms. Walker for additional information about each child in her class and about particular behaviors that I noted while observing. Much of this information from Ms. Walker was collected during informal interactions that occurred during classroom observations.

Artifacts were collected as a source for confirming and contesting the observation and interview data. These artifacts included, but were not limited to, schedules of daily activities in the classroom, copies of children's class work and artwork, samples of worksheets handed out, and Ms. Walker's anecdotal records about children in her classroom.

Participants

Children. The 16 children (8 boys, 8 girls) in Ms. Walker's kindergarten class participated in the study. The children were all White and from families of middle to upper middle SES. At the time of the study, all children were either 5 or 6 years of age. Each child has been assigned a pseudonym for the purpose of reporting in this study.

Teachers. The school had five kindergarten teachers, all of whom consented to be part of the study. All of the teachers were White and of similar SES as the children in the study.

At the time of the study, Ms. Walker had been teaching kindergarten for 9 years. She had a bachelor's degree in psychology, a master's degree in education, and coursework for certification in early childhood education. Ms. Walker stated that she enjoyed teaching and that she continued to teach because of her love of children. She believed that the children in her classroom benefited from the academic focus of her teaching and that they needed this foundation to be successful in future academic endeavors. Ms. Walker professed belief in developmentally appropriate practices when I questioned her about her beliefs. She commented that she often felt pressure from parents in particular to help children excel academically. She also stated that she wanted the children to do their very best at all times and felt that pushing them academically in kindergarten would help them to be successful in future grades.

Ms. Walker consented to participate in this study and was welcoming to all observations, conversations, and interviews. She stated that she agreed to take part in the study because she was interested in having the children in her classroom observed to see whether any learning differences would be noticed or identified. Ms. Walker, through conversation, suggested that a child had a "learning difference" when she identified that he or she could not keep up with the academic demands of the classroom or required teacher help to complete the work.

Classroom Context

Physical Space. Ms. Walker's classroom was situated halfway up the main hallway in the school's preschool building. All of the kindergarten classrooms were located on this hallway except one, which was directly around the corner from the others. The hallways were decorated with children's creations, including works of art and written pieces. The doors to each room were generally kept open, and the feeling of the school was warm and caring. The warmth was shown in the way teachers greeted children by name as the children moved throughout the hallways. Teachers were heard asking the children about their activities and lives outside of school; they showed genuine interest in listening to the children.

Ms. Walker said that she preferred to keep her classroom door closed to lessen the noise and distraction from the hallway. Her classroom had individual desks for each child. The desks were arranged in a "C" shape, with the back of the "C" being a single row of desks and the two arms of the "C" having desks with children facing one another. Three desks were located on the back wall of the classroom behind the back of the "C." The room also had a table that the teacher used as her desk. It was filled with stacks of paper and books and miscellaneous items brought in by children or the teacher for use in the classroom.

Areas of the room were designated as "centers." These included a computer center with a table and two chairs and two computers; a math, puzzle, and game center with shelves arranged around a space on a rug; a reading center with a bookshelf with approximately 50 books; an art center with art supplies such as construction and copy paper, markers, crayons, scissors, scrap paper, and stickers arranged on a table with a few chairs gathered around it; a writing center with paper, pens, and crayons at a table with chairs; and a listening center at a back table with books and cassette tapes of the books.

Artifacts on the walls included a bulletin board with the caption "Look at our wonderful work." Stapled to the board were work samples from the children. Also on the classroom walls were a "word wall" with high-frequency words; an ABC chart; maps of the United States and the continents; a "star student" poster; children's artwork; a number and manuscript chart, used to help children in correctly forming numbers and letters when writing; a monthly calendar, used to help children identify the current date; a behavior chart, used to keep track of individual student behavior; a picture of the different denominations of U.S. money and their values; a birthday graph that identified in which month each child's birthday occurred; a color chart, used to help children identify colors and their spellings; a spelling word list; and classroom rules. All of the charts were placed at eye level for the children except the manuscript and number chart, which was lined around the room at the top of the wall. Virtually all of the wall space was filled with these articles. In addition, one display featured a picture of a cartoon drawing of a snail, called the tattle-tale snail. On this picture, a child who was upset with a friend would write down the concern and pin it to the snail. Ms. Walker explained to me that she hoped that through using the tattle-tale snail the children could learn to vent their frustrations through writing and eventually through talking out their conflicts with their friends.

Schedule. The official start time for kindergarten at the school was 8:20 a.m. Children were allowed in the building starting at 7:30 a.m., but they did not go into their classroom until 8:00. The time between 7:30 and 8:00 was spent in a designated room where children were allowed to color or play with various toys or manipulatives. When the children came into Ms. Walker's room at 8:00, they were allowed further free time until the 8:20 bell.

Ms. Walker called the class together each morning around 8:30. The children were given a snack break around 10:00 a.m. Lunch and recess followed the daily morning work period. Science or social studies were scheduled for the afternoon. The school day ended at 2:15 p.m. when the children either went to their carpools or to another room in the school for after-school care.

Data from the Study

Daily Routines

As children entered the classroom each day, they were greeted by Ms. Walker. The children put away their backpacks and jackets and got out any notes or other items that the teacher requested. They were then allowed to socialize, quietly, with one another as they played with puzzles, read books, or took a turn on the computer. When the school bell rang at 8:20, they were directed to clean up, come to the rug as a group, and sit in a circle, to start the day. The day began with the pledge to the American flag and a patriotic song, followed by the teacher's announcements of the important happenings of the day ahead and follow-up or clarification needed on notes given to the teacher earlier by the children. The teacher then discussed end-of-the-day plans for each child such as extended day, carpool, or going home with a friend.

Ms. Walker then began with the calendar, weather, and everyday tasks such as tallying the days in school, counting the coins on the board, and going over the word wall, which took about 5 to 7 minutes. A different child was assigned to these tasks each day in a preset rotation. As a child performed the tasks, he or she would add the current day's date to the calendar, usually predicting the date and what part of the pattern was being continued. For example, if the January calendar had a number 1 on a snowflake, the number 2 on a snowflake, and the number 3 on a snowman, a child would be asked to predict what the number 4, for January 4, would be on. If a child was recording the weather, he or she would typically look outside to see the conditions and also look at the thermometer. The condition (sunny, cloudy, rainy, etc.) would be recorded on the weather chart. While these tasks were being completed by an individual child, the other children remained sitting quietly in the circle.

When these everyday tasks were finished, the teacher gave a quick overview of the work to be completed for the day. The overview usually consisted of the schedule for the day and the basic nature of the tasks to be completed. For example, one day Ms. Walker told the children that they would have music with the music teacher after snack and that recess would be after lunch. Before she had the children return to their desks, she told them that they had several phonics pages to be completed because they were behind in the schedule. This assignment would be in addition to their typical work for the day.

When the children returned to their desks from circle time, they opened their personal work folders, which were placed there by Ms. Walker. The folders contained all the previous day's worksheets from all curriculum areas and the current day's tasks to be completed. The children perused the folders until the teacher called for their attention in the front of the classroom. Ms. Walker then spent about 2 to 3 minutes reviewing the previous day's work and asking the children to complete any corrections needed, with special attention given to any problems that the majority of the children may have had with the work. Attention was then quickly diverted to the work of the day. The teacher usually began with a short lesson (about 3-5 minutes) at the board for the more novel work, such as producing their own spelling sentences with the new spelling words, and then she gave a final, quick once-over of the directions for the other tasks that were more routine, which again took 2 to 3 minutes.

A typical day's task might include a lesson using the spelling words of the week. These words were selected by the teacher. For instance, one week the spelling words were blend, blond, brand, land, and lend. Ms. Walker went over the spelling words by pointing to them and having the children respond chorally. She then asked individual children to read the sentence that she had written with the spelling words. These sentences included "We blend many words. The girl's blond hair is pretty. What brand are your shoes? The land is flat. Can you lend me a dime?" Ms. Walker then directed the children to use their "best handwriting" to copy the sentences from the board. Once a week, she asked the children to write their own sentences with the spelling words. Additional work typically included two to three math worksheets, a phonics page (front and back), and some type of directed handwriting task. Ms. Walker directed the children to start by correcting their previous day's work, which had been graded with stars, checks, or a numeric notation such as "-2." They could then move on to the current day's tasks.

As the children worked, they were allowed to go to the teacher, who was seated at her table/desk, to ask questions, to get clarification of directions, or to seek general help. Ms. Walker directed the children to work without talking throughout the "worktime" and told them specifically not to seek help from one another, only from her.

When children were finished with their work, they turned it in to Ms. Walker in their folders. They were then allowed to go to a center of their choice to practice academic skills. The center options included working on a specific computer program, listening to a book chosen by the teacher at the listening center, working with white boards and markers to practice handwriting or math facts, practicing spelling words with magnetic letters, or other tasks set out by the teacher.

The "worktime" generally lasted 2 to 2½ hours. It was interrupted for snack at around 10:00 for about 10 minutes. The reading groups described below were also held during

worktime, and on 2 days a week, the Spanish teacher came to the room for a 25-minute lesson.

Ms. Walker informed me that she returned the work of the previous day to children when it needed to be corrected. If a child had no mistakes on a paper, she put a sticker on the outside of the folder to show that the child had done good work. I asked if stickers were given for effort; she answered "No."

Observations in Class

Academic activities for the children in Ms. Walker's class included large group work with the teacher, small group work with the teacher, one-on-one work with the teacher, and independent work.

Large group tasks involved activities such as the morning circle time described earlier, reading the word wall, show-and-tell, read-aloud story time, and retelling of stories.

Reading groups were an example of small group work with the teacher. During worktime throughout the week, Ms. Walker would call groups of four to five children, grouped by reading ability, to work with her in reading groups. In a typical week, each child would be called to meet once or twice in a reading group. The children generally showed excitement when called to their reading groups. They moved quickly to the rug, without hesitation, to meet with Ms. Walker. A typical meeting would last 10-15 minutes, with children participating in round-robin reading. During this time, the teacher often praised the children for their reading: "Gosh, Julie, you read that without any mistakes."

Ms. Walker had structured rules for children's daily work. On the whole, the children seemed to attend to Ms. Walker during her explanations and to participate without complaint in the work routines that she put into place.

I observed that she reminded individuals and the class daily to do their own work and to not seek help from their peers. On more than one occasion, I observed children using file folders as dividers to shield their work from their peers. Ms. Walker would praise children for doing this, making a comment such as, "Thank you, Kathy, for putting up your file folder. I don't want people to take your answers. I want to know only what they know on their work, not what you know."

Ms. Walker also frequently reminded children about work habits. She seemed to focus especially on habits she thought were not compatible with hard work. For example, she commented to one child, "Carson, don't put your head in your hands while you are working. It makes you look lazy." Following this comment, Carson put his fingers in his mouth.

Many of the contacts between Ms. Walker and the children during worktime were reprimands to children for not doing their work correctly, fast enough, neatly enough, or for not listening to directions. For example, a frequent comment by the teacher was, "If you listened the first time when I gave directions, you wouldn't have to waste time by asking me now, and you could get your work done." When Ms. Walker noticed children talking to each other or looking to peers for help, she reminded them, in a matter-of-fact tone, to not talk and to do their own work. She consistently praised the child who completed the work for the day first. A typical comment would be, "Thomas is a great worker. See, boys and girls, if you do your best, you can be done first."

Observations of Individual Children

The following vignettes are of children who exhibited signs of stress in the classroom during my observations.

Mary. Ms. Walker asked Mary to stand up in front of the class and retell the story of the book read in large group the day before. Mary stood in front of the class and, in a very quiet voice, began to retell the story. She frequently paused in her retelling, and when she did, the teacher prompted her to "go on." Mary put her fingers in her mouth when pausing and then, when returning to the story, she twirled her hair or pulled on her clothes. The teacher stopped Mary at one point and asked the class, "Does everyone agree with Mary? Does she have the details right?" Tom raised his hand and remarked that Mary was wrong. The teacher invited him to come up to the front and tell what he remembered from the story. As he started to retell the story, Mary did not argue with him about the details. They continued the retelling together with Mary doing most of the talking and Tom sometimes joining her. Ms. Walker described both Mary and Tom as "bright children" during a subsequent conversation with me.

Tom. Ms. Walker called Tom up to her desk to talk about his work. She commented that she didn't think that his previous day's work was the best he could do. She continued that he needed to do his best and that she couldn't give him stickers on his work if he didn't earn them. Ms. Walker also stated how disappointed mom and dad would be if he didn't have stickers on his folder. Tom looked down at his work while she was talking and pulled on his lip. He took the previous day's work back to his desk to be corrected. Although, as noted above, Ms. Walker commented on Tom being a "bright child," she was very stern with him when he appeared to rush through his work and make careless errors.

Kylie. Kylie approached Ms. Walker for help with the spelling word task for the day. She asked, "What word is this?" Ms. Walker responded, "If you had been listening and paid attention during directions, you would know what the word is." She then told Kylie, "The word is 'lend.'" Kylie walked back to her desk with a look of embarrassment, continuing to look back at the teacher. Later, Kylie was having difficulty with the spelling sentences. She asked Ms. Walker whether the child beside her, Mary Kate, could help her. The teacher responded, "No, Mary Kate is way behind on her work. She is only on handwriting and that is not good. She should at least be on the clocks page. Besides, it is not her job to help you." At this point, both girls, Kylie and Mary Kate, put their fingers in their mouths and looked away from the teacher.

Kylie was able to complete the assignment without error by writing the following sentences (Ms. Walker's example is in parentheses):

1. Can you lend me a pencil? (Can you lend me a dime?)
2. My house is on flat land. (The land is flat.)
3. I have blond hair. (The girl's blond hair is pretty.)
4. I help my mom blend the cake. (We blend many words.)
5. What brand is your doll? (What brand are your shoes?)

Ms. Walker later described Kylie to me as "a fine student who just doesn't pay attention as well as she should."

Drew. Drew sat in the back of the room in a row of three children. He appeared to be a fidgety child, frequently playing with his shoes and shoelaces or his pencil. He demonstrated a lack of engagement for school tasks, particularly during the worktime of the day. Many of Drew's work samples were incomplete or contained errors. For instance, a math worksheet with six items was fully completed but contained one error. In another example, for the weekly task of writing one's own sentences for the spelling words (swim, swell, swig, kept, kick), he only completed two sentences. When Ms. Walker asked him about the other three words, he responded that he didn't know what they were. Ms. Walker commented, "If you were listening, you would know what the words are. We have been working on these words all week. Can you sound them out?" With the teacher's help, Drew tried to decode the words.

Ms. Walker sent him to his desk to complete the sentences. He returned to the teacher after about 5 minutes, saying, "I don't know what to write." Ms. Walker asked him whether he knew what "swell" meant, and he responded, "No." Again, she reprimanded him for not listening. At this point, Drew looked away from her and began twirling his pencil in his hand. Ms. Walker eventually helped him create three appropriate sentences but commented to Drew, "I will have to write on your paper that you had to have me help you to do this so that mom wouldn't think you did it on your own."

Drew's work avoidance and pencil twirling may have been evidence of stress. I noted that his pencil twirling was repeatedly exhibited in response to Ms. Walker's comments during his one-on-one interactions with her.

Ms. Walker described Drew as "slow to learn" in her conversation with me. She elaborated that he was seeing a tutor during the school day twice a week to help with his

reading skills. She commented that he would probably do fine in school but that his parents were slow to accept that he had any difficulties.

Jon-Jon. The children were involved in a writing task—listing four things that the children thought they were very good at doing. Ms. Walker modeled the exercise on the board for all the children. As she began to move about the room, Jon-Jon had his hands over his ears and let out a silent “aaaaaaagh” as he attempted to think of four things to write. When Ms. Walker noticed him, she walked over to the desk and commented, “I don’t know why you are not writing yet. This is easy work. You need to get busy.” Jon-Jon pulled his shirt into his mouth and chewed on it. He sat for a few more minutes and then quickly wrote four things: baseball, soccer, reading, Xbox.

On another day, Ms. Walker asked Jon-Jon to recite the words on the word wall. She reminded the other children, “Don’t help him or say anything out loud.” Jon-Jon began to recite the words on the wall, the whole time pulling on the sleeves of his shirt and swaying back and forth. He proceeded through the task with few errors.

During conversation with me, Ms. Walker remarked that “Jon-Jon was an exceptional student who should do very well in school.”

Preliminary Summary

Of the 16 children in Ms. Walker’s classroom, I recorded evidence that 5 boys and 4 girls (a total of 9 children) exhibited some type of stress behavior during my observations. Typically the same 5 children showed stress behaviors frequently and 4 less frequently. I noted that for the most part, children who showed signs of stress did so when interacting with Ms. Walker in a one-on-one situation and when they were expected to either perform a task in front of the large group or to complete individual assignments during “worktime.” Children were observed showing signs of stress while reading the word wall or standing in front of the class retelling a story. During each of my observations, I also noted at least 4-5 children exhibiting signs of stress during individual work times. I never noted children exhibiting signs of stress during reading group time.

I also observed that each time Ms. Walker made a comment about a child being the first to finish a day’s work, the child to whom the comment was directed would exhibit a stress behavior. In fact, most stress behaviors in the children were noted following the teacher’s comment or reprimand about quality of work or actions and behaviors during the work period.

When I asked Ms. Walker about any specific child who exhibited a stress behavior, Ms. Walker typically responded with a comment suggesting that the child had a learning difficulty or that the child was just nervous in nature, the child was not feeling well, or some similar explanation. For example, when I asked about some of the stress behaviors that Mary was exhibiting, Ms. Walker commented, “Mary has digestive issues. I think that is why she is always complaining about her stomach and wants to go to the bathroom.” When I probed further about the digestive issues, Ms. Walker said, “I really don’t know, but that it just seems like that’s the problem.” The teacher never suggested that the children might be experiencing some type of stress that might have resulted in the exhibited behavior.

Preliminary Discussion

It is likely that in any education program, some children will feel and exhibit signs of stress from time to time. Many variables within the school day may affect children, from the environment of the classroom to teacher-child and child-child interactions.

My observations in Ms. Walker’s classrooms suggest some specific sources of stress in a particular classroom for particular children. Some of the questions that arose for me during this research had to do with the potential causes of children’s stress behaviors. When a child in Ms. Walker’s class exhibited signs of stress, was the stress caused by the task at hand? That is, did the child find the task too challenging, or was he or she anxious about “performing” in front of peers? Was the stress the result of something in the teacher-child interaction? That is, did the teacher’s words, tone, or expressed expectation cause the child to feel embarrassed, tense, or anxious? Or might the children experience stress as a result of both the task and the interaction with the teacher?

The finding that some of the children in Ms. Walker’s class did not display stress symptoms leads to questions about characteristics of individual children. For example, do the children who showed signs of stress in the kindergarten also display stress in other situations at school and throughout their time away from school?

In the larger picture, other questions may need to be examined regarding kindergarten practices. For example, what types of classroom environments and teacher characteristics ease or contribute to stress experienced by children in kindergarten?

The NAEYC position statements on developmentally appropriate practices (Bredekamp, 1986; Bredekamp & Copple, 1997; NAEYC, 2009) have addressed developmentally inappropriate and problematic practices such as predominantly teacher-directed tasks, highly structured classes, large group work, paper/pencil tasks, rote learning, direct teaching of discrete skills, punishment, extrinsic rewards, and standardized assessment. These examples stand in contrast to developmentally appropriate practices, such as encouragement of active exploration, a predominance of concrete experiences, positive guidance, and interactions that promote healthy self-esteem and positive feelings toward school. Are children in developmentally appropriate settings less likely to exhibit stress behaviors than those in settings where developmentally inappropriate practices are predominant?

Other questions are raised by the finding that the kindergarten teacher professed belief in developmentally appropriate practices but practiced teacher-centered and teacher-directed education. For example, what might lead to disparity between a teacher’s professed beliefs and his or her day-to-day practice? I observed that other kindergarten teachers in the same school presented the information to children differently and also had a very different atmosphere in the classroom that seemed to put children more at ease during the same academic tasks that Ms. Walker’s students were doing. What factors might affect kindergarten teachers’ decisions about how they will teach and how they will interact with children? For example, if some kindergarten teachers are in fact “pushing too much too soon,” what are their reasons? What do they assume are the true requirements for a child to be successfully prepared for first grade and beyond?

Finally, if children’s stress behaviors signal problems that concerned adults may be able to alleviate, then further investigation in other settings is warranted.

References

- Bredekamp, Sue (Ed.). (1986). *Developmentally appropriate practice*. Washington, DC: National Association for the Education of Young Children.
- Bredekamp, Sue, & Copple, Carol (Eds.). (1997). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8* (Rev. ed.). Washington, DC: National Association for the Education of Young Children.
- Burts, Diane C.; Hart, Craig H.; & Charlesworth, Rosalind. (1992). Observed activities and stress behaviors of children in developmentally appropriate and inappropriate kindergarten classrooms. *Early Childhood Research Quarterly*, 7(2), 297-318.
- Fallin, Karen; Wallinga, Charlotte; & Coleman, Mick. (2001). Helping children cope with stress in the classroom setting. *Childhood Education*, 78(1), 17-24.
- Hart, Craig H.; Burts, Diane C.; Durland, Mary Ann; Charlesworth, Rosalind; DeWolf, Michele; & Fleege, Pamela O. (1998). Stress behaviors and activity type participation of preschoolers in more and less developmentally appropriate classrooms: SES and sex differences. *Journal of Research in Childhood Education*, 12(2), 176-196.
- Hart, Craig H.; Yang, Chongming; Charlesworth, Rosalind; & Burts, Diane C. (2003, April). *Kindergarten teaching practices: Associations with later child academic and social and emotional adjustment to school*. Paper presented at the biennial meeting of the Society for Research in Child Development, Tampa, FL.

Jewett, Jan. (1997). Childhood stress. *Childhood Education*, 73(3), 172-173.

Marion, Marian. (1995). *Guidance of young children*. Englewood Cliffs, NJ: Merrill.

National Association for the Education of Young Children. (2009). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8: A position statement of the National Association for the Education of Young Children*. Washington, DC: Author. Retrieved February 9, 2009, from <http://www.naeyc.org/about/positions/pdf/PSDAP.pdf>

Editor's note: This url has changed:
<http://208.118.177.216/about/positions/pdf/PSDAP.pdf>

Ruckman, Andrea Young; Burts, Diane C.; & Pierce, Sarah H. (1999). Observed stress behaviors of 1st-grade children participating in more and less developmentally appropriate activities in a computer-based literacy laboratory. *Journal of Research in Childhood Education*, 14(1), 36-46.

Stansbury, Kathy, & Harris, Michael L. (2000). Individual differences in stress reactions during a peer entry episode: Effects of age, temperament, approach behavior, and self-perceived peer competence. *Journal of Experimental Child Psychology*, 76(1), 50-63.

Zeigart, Dannah I.; Kistner, Janet A.; Castro, Rafael; & Robertson, Bruce. (2001). Longitudinal study of young children's responses to challenging achievement situations. *Child Development*, 72(2), 609-624.

Author Information

Lori A. Jackson, M.Ed., is the elementary coordinator at Cliff Valley School in Atlanta, Georgia, and is pursuing her Ph.D. in educational psychology at Georgia State University. Her current research focuses on children's stress and anxiety and how that affects their academic self-concept.

Lori A. Jackson
 Cliff Valley School
 2426 Clairmont Road
 Atlanta, GA 30329
 Telephone: 678-302-1302
 Email: ecelaj@langate.gsu.edu

Appendix A Checklist of Children's Stress Behaviors*

- Crying
- Sweating palms
- Running away (avoidance)
- Outbursts
- Rocking
- Self-comforting behaviors
- Complaints of headache/stomachache
- Hair twirling
- Chewing or sucking on hands or clothes/other items
- Biting of skin/fingernails
- Toileting accidents
- Excessive shyness

*Source: Stansbury & Harris, 2000; Fallin, Wallinga, & Coleman, 2001; Marion, 2003.

Appendix B Framework for Open-ended Interview with the Classroom Teacher

The following questions are intended as a general guide for the interview with the classroom teachers. More questions regarding child behaviors in the classroom may be asked as the researcher will follow the lead of the teachers.

1. What are the different types of activities children in your classroom are involved in during a typical school day?
2. What are the academic expectations of the children in your classroom at this school? What should they be able to "do" at the end of the year? (in reading and math, etc.)
3. Do you feel pressure from your administration or parents of your students to have the children perform at a certain level academically?
4. What do you think the parents of your students expect from their children academically?
5. What kinds of school-related questions, such as curriculum, programs, do you typically get from the parents of your students?
6. What kinds of activities do you know about that the children in your classroom participate in after school?
7. Do you see children in your classroom behaving differently during the various activities they are involved in at school?
8. Do you ever notice children showing signs of stress, such as nail biting, hair twisting, chewing on their shirts, complaints of headaches or stomachaches, during the school day? If so when, and what are they?