



Elementary

vol. 23, no. 1

Creating Emotionally Healthy Learning Environments: Eliminating Emotional Maltreatment From Your School

by Gregory R. Janson and Margaret A. King, Ohio University

Teachers are so influential in the lives of children that they may be the one trusted person outside the home to whom a child can turn in a time of trouble. The role that teachers play with students, especially during the elementary years, can influence children's lifelong response to learning. For these reasons, a positive and affirming relationship between teachers and the children they teach is essential (Hamre & Pianta, 2005). Conversely, teacher-child relationships that are characterized by negative interactions can interfere with learning and development (Garbarino, 1987; Shumba, 2002a) and can escalate to the level of child abuse (Garbarino, 1979; Janson & King, 2006; Krugman & Krugman, 1984). For teachers, creating emotionally healthy learning environments for the children is as important as creating a learning environment of academic subjects, such as math, reading, and science, since children's emotional

well-being may affect their ability to learn (Sylwester, 1994). When children feel unsafe or threatened—or even emotionally uncomfortable—in a classroom setting, they are far less likely to understand and retain what they are learning. Teachers can influence the climate and create an environment where children feel safe and secure by eliminating emotional maltreatment in the classroom.

What Constitutes Emotional Maltreatment in the Context of a School?

Emotional maltreatment is a form of interpersonal violence, often embedded in sanctioned behavioral and disciplinary practices in schools, that leaves children feeling isolated,

continued on page 2 . . .

From the Editors

With this issue, we—Lena Lee, Assistant Professor of Miami University, Ohio, and Tata J. Mbugua, Associate Professor in University of Scranton, Pennsylvania—start our co-editorship of *Focus on Elementary*. My (Lena's) research interests include examining what is chosen to be taught in schools and how sociocultural values and assumptions can influence a way of teaching, as well as defining certain subject content, social issues, and cultures, including popular culture and mass media. Tata's current research interests lie in the areas of integrating cross-cultural and global perspectives in curriculum, as well as authentic ways of immersing preservice teachers in international experiential learning opportunities for perspective taking and culturally responsive teaching.

We are very excited to serve as editors and strongly encourage you to contribute to the *Focus on Elementary*. This issue focuses on emotional maltreatment in

elementary schools. Two experts from Ohio University, Drs. Gregory Janson and Margaret King, will share their ideas about how to deal with young children's emotions in a better way.

CALL FOR MANUSCRIPTS

The Editors of *Focus on Elementary* are seeking submissions. Submit articles addressing issues related to elementary school and education to the editors: Lena Lee (leel@muohio.edu) or Tata Mbugua (mbuguat2@scranton.edu)

In particular, the Spring issue will focus on "Teaching Social Studies in Elementary: Instructional Strategies and Ideas" (Due: December 31, 2010). To submit for this issue, please contact Lena Lee at leel@muohio.edu

EDITORS:

Lena Lee

Miami University, Ohio

Tara Mbugua

University of Scranton

Focus on Elementary is published quarterly by the Association for Childhood Education International, 17904 Georgia Ave., Ste. 215, Olney, MD 20832.

Articles published in ACEI's *Focus* Quarters are peer-reviewed at the determination of the field editor. Articles published in *Focus on Elementary* represent the views of the authors and do not necessarily reflect positions taken by the Association for Childhood Education International.

Copyright © 2010 by the Association for Childhood Education International. No permission is needed to reproduce materials for education purposes.

ACEI EXECUTIVE BOARD:

Jim Hoot,

President

Debora Wisneski,

President Elect

Suzanne Winter,

Vice President: Infancy/Early Childhood

Vidya Thirumurthy,

Secretary

James Kirylo,

Treasurer

Kathleen Fite,

Member-at-Large

Christine Chen,

Member-at-Large

Jane Lim,

Emerging Educator Representative

Loren Meinke,

Presidents' Council Representative

Diane P. Whitehead,

Ex Officio Member

ACEI HEADQUARTERS STAFF:

Diane Whitehead,

Executive Director

Anne Watson Bauer,

Editor/Director of Publications

Bruce Herzig,

Assistant Editor

Lisa Wenger,

Director of Conferences

Jana Pauldin,

Director of Chapter Development

Arlyn Elizée,

Director of Programs and Services

Yvette Murphy,

Director of Advocacy and Outreach

Copyright © 2010 by the Association for Childhood Education International

... continued from page 1

insignificant, helpless, and hurt. The essence of emotional maltreatment in the classroom is that it is a repetitive assault on the core of the child; it targets the child's personality to gain control over a child's behavior. Some of the behavioral techniques that educators often use in these situations include ridiculing, forcing, shaming, or humiliating children for their performance, behavior, and personality traits. Emotional maltreatment can be accompanied by physical aggression, such as negative body language and facial expressions, demeaning and dismissive gestures and tone, as well as pushing, grabbing, physically restraining, and dragging children.

What Is the Impact of Emotional Maltreatment?

Emotional maltreatment has both short- and long-term consequences. In the short term, children can become school avoidant, withdrawn, anxious, depressed—or they may act out as a means of protecting themselves or making themselves, in their eyes, significant, creating a self-fulfilling cycle (Janson & King, 2010). In either case, when children are repeatedly singled out, the classroom becomes an isolating environment that may make it impossible for them to learn and socialize effectively. In the longer term, they may develop a school failure identity, suffer from low self-esteem, and learn that they are not redeemable as a person. In situations where children have multiple risk factors, such as living in poverty, minority status, a learning disability, or a home life characterized by chaos and lack of support, the effects are magnified geometrically. As young children grow and develop, the impact of emotional maltreatment may have a stronger, more lasting influence than physical abuse, since developing personalities are highly sensitive to influences that affect self-esteem, confidence, competency, and self-image (Loring, 1994). When adults are emotionally abusive, children often blame themselves; emotional maltreatment can change a healthy child dealing with normal developmental challenges into a child who views life as hopeless and failure as inevitable. Age is a factor, too: the younger the child, the more vulnerable he or she is to emotional maltreatment.

When emotional maltreatment is a part of the school environment, children no longer feel safe and secure in the world of school. Maltreatment by a teacher affects children's emotional, social, and cognitive functioning similarly to parental maltreatment, since emotional maltreatment penetrates the child's core, creating feelings of isolation, loneliness, helplessness, and insignificance. Symptoms of emotional maltreatment may appear as lower self-esteem, anxiety, depression, aggression, dependency, failure to thrive, impulse control problems, low academic achievement, and learning disabilities (Janson & King, 2010). However, once teachers are aware of the attributes of emotional maltreatment, they can better foster a quality environment for children in their classrooms.

Debunking Myths About Emotional Maltreatment in Schools

Emotional maltreatment is a part of the hidden culture of schools; consequently, there are few investigations of the topic, and it remains an almost invisible phenomenon. With the rare exception of a few scholars who have been concerned with what Hart described as "discipline and control through fear and intimidation [and] low quantity and quality of human interaction" (1987, p. 169), only a few studies have investigated the emotional maltreatment of children in classrooms by teachers, and nearly all of those studies were in other countries (Benbenishty, Zeira,

continued on page 3 . . .

ArtBreak

Katherine Ziff, Ph.D., Elementary School Counselor, Athens City Schools, Athens, Ohio

ArtBreak is a pilot program, developed in the Athens (Ohio) City School District, as an intervention program to build prosocial skills among elementary school students. Small groups of four to seven K-6 students of diverse ages, skills, and genders work together for 30 minutes per week throughout the school year in an art studio format, usually known as ArtBreak.

The groups are organized and facilitated by the school counselor, whose role in the group sessions is to model problem-solving, demonstrate the use and care of art-making materials, teach certain skills, such as set-up and clean-up, encourage and model supportive behavior and language, keep time, document student work products and process, and make decisions about which new materials and processes should be introduced to the children. A key element of ArtBreak is the choice-based, open art studio format that offers students art-making materials and processes that are developmentally appropriate for ages 5-12 and span the Expressive Therapies Continuum (ETC). The student who builds a large, cardboard robot or a pop-up sculpture requires different materials than the student who makes by hand a small book and fills its pages with watercolor paintings embellished with tiny beads. Likewise, the student who needs to relax and express feelings may find finger paint satisfying, while a student who wants to create a story may find a box of collage materials appealing.

The geography and composition of the ArtBreak studio is flexible: it can be a room dedicated to art making, a corner in a classroom, or have student sketchbooks set up to accommodate a variety of media.

Students discussed ArtBreak at the end of its pilot year (2009-10). The comments below reflect the children's experiences with the ETC, indicating expression of feeling, problem-solving, and reflection.

"You make things for the joy of it." "If you're mad, you calm down." "It helps me control my anger, because you sit down with me and paint." "Finger painting feels good; it is awesome and smooth. Regular paint is not so fun as finger paint." "You use your thinking, you think about what you're making." "We learn about tools, what you can make with them, being careful with them." "Mixing colors . . . it is fun. I learned that I like painting." "If your paint gets kind of dry, you can draw and scratch things in it." "We make new friends." "We have fun; we help each other and that's fun." "We learn to be creative and be a good sport . . . we support each other!"

For further reading:

- Gandini, L., Hill, L., Cadwell, L., & Schwall, C. (2005). *In the spirit of the studio: Learning from the atelier of Reggio Emilia*. New York: Teachers College Press.
- Hinz, L. (2009). *Expressive therapies continuum: A framework for using art in therapy*. New York: Routledge.

. . . continued from page 2

Astor, & Khoury-Kassabri, 2002; Shumba, 2002b).

We are not psychologically prepared to accept the idea that children are frequently emotionally abused by teachers, whom we trust to care for children. We often fail to recognize emotional maltreatment, because we do not understand it or how it presents in classrooms. Exploring myths about emotional maltreatment in school settings may be helpful in understanding the interpersonal practices that sustain emotionally abusive interactions between teachers and students.

Myth #1: Emotional maltreatment rarely occurs in schools; parents mistreat children, not teachers. There is a presumption that since teachers are professionals who are licensed and trained, and are mandated to report abuse, they cannot be emotionally abusive. Even though there is a void in empirical research studies documenting emotional maltreatment in schools, a considerable body of anecdotal evidence does exist. When asked, most children and adults relate vivid memories of teachers and principals humiliating, criticizing, threatening, and isolating them for such minor infractions as talking in class, not completing assignments on time, and not paying attention. Anecdotal recall of school experiences commonly leads many adults, teachers, and parents—whether they were direct victims or bystanders—to affirm that they had teachers who were "mean" or "abusive" or who "picked on them." A typical characterization might be: "It was pretty bad, and the teacher really singled me out a lot, but I turned out okay." Others might say, "I was never singled out, but my friend was always in trouble and the teacher made negative comments about him. I was always afraid that she would get me next." Parents, recalling their own experiences, often express fear

continued on page 4 . . .

continued from page 3

and concern about their own children when it comes time to attend school.

Myth #2: Emotional maltreatment is difficult to recognize in school settings. The key to identifying emotional maltreatment in classrooms is to look for *repeated* negative interactions between a teacher and the same student. Usually, such interactions occur over a child's failure to meet a teacher's expectations, expectations that may initially seem reasonable, but often are not, given developmental considerations. There is an assumption that emotional abuse occurs only when a teacher openly dislikes a child and constantly, overtly denigrates or attacks that particular child. But this form of abuse is rare and almost always dealt with administratively.

Myth #3: The entire concept of emotional maltreatment is vastly exaggerated: Children need discipline and structure! True. Young children need structure and discipline, and they need to learn about consequences, but *how* they learn these lessons is critically important. Emotional maltreatment is not often viewed as a problem in schools, because it is difficult to identify: it is so closely linked to many commonplace discipline practices that it appears as part of the "normal" landscape. While children need to learn about boundaries and responsibilities and limitations, it is sometimes difficult for educators to differentiate between emotional maltreatment and appropriate discipline, even though there is a distinct difference between the two. The goal of appropriate discipline is self-regulation, negotiation, and learning about choices. When discipline is used as a control mechanism, it commonly relies on emotional maltreatment as an integral enforcement component. It is an assertion of power on the part of teacher, and ironically, it removes responsibility from the child. Hyman and Snook (1999) describe the signs of this type of discipline as fear and intimidation, verbal assaults, threats, scapegoating, bullying, and overtly critical motivational techniques, as well as lack of caring, interest, and affection, as demonstrated by ignoring, rejecting, and isolating children. In classrooms, these tactics may be seen as a teacher making such statements as, "If you do not improve, I will move you back to kindergarten," "Your desk is a mess; I can understand the reason no one wants to sit next to you," or "Since you can't listen, your desk will be moved to the corner of the room so you can be alone."

Without question, this type of treatment has a negative impact on children. Research evidence suggests that emotional maltreatment is more likely to have severe and permanent effects on learning, personality, and development for younger children than for older children and adolescents, who are more able to "push back" and have a more developed sense of self. In other words, "Kids who are the victims of persistent put-downs don't walk around with bruises on their arms and legs, but often they're as damaged just as much as if they'd been

physically assaulted" (Brown, 1979, p. 12, as cited in Hart, Brassard, & Germain, 1987, p. 225).

Myth #4: Emotional maltreatment does no real harm; it is a "natural" part of growing up. Popular belief holds that "sticks and stones may break my bones but names will never hurt me"; however, research demonstrates that emotional maltreatment may cause more harm than physical maltreatment. Most physical wounds heal quickly, but emotional wounds strike at the very core of who we are and may last longer, often into adulthood. The long-term consequences are not easy to discern but may be expressed symptomatically as cognitive impairment, altered brain function, emotional dysregulation, depression, anxiety, and even self-mutilation. It is also important to remember that while some children turn outward by acting out or pushing back against assaults on their core self, others turn inward, to less obvious and more socially acceptable forms of dysfunction that are equally self-destructive.

Myth #5: Emotional maltreatment and physical maltreatment are separate things. At present, almost half the states in the United States permit corporal punishment in schools, even though the United Nations Convention on the Rights of the Child (1989) forbids it as a violation of the human rights of children. It is noteworthy that of all the member nations of the United Nations, only two have not signed the Convention: Somalia and the United States.

The physicality of corporal punishment always has emotional consequences, and so there is no clear line between the two forms of maltreatment. Even when overt physical maltreatment (such as paddling) may be absent, more subtle forms of physical maltreatment are often used to reinforce techniques that rely on emotional maltreatment. These include pinching, shaking, pulling or restraining children, or dragging a child down the hall in full view of other children.

Myth #6: Confronting a colleague about his or her teaching isn't my job—and might make things worse. It is never an easy thing to confront a colleague, but the focus must be on the child and what is happening to him or her, not on you or your colleague. Give permission to yourself to feel uncomfortable and uncertain as you act on behalf of children. Recognize that even for individuals who are trained and experienced in the art of intervention and confrontation, it is often challenging and upsetting to step forward on behalf of a child who is experiencing emotional maltreatment at the hands of a colleague. Teachers wonder about the consequences of intervention: Might they become a target? Will they anger their colleague and have to deal with unforeseen problems? Will intervention make the situation more difficult for the

continued on page 5

The Power of the Beat: Ideas To Use Music To Promote Increased Academic Engagement in K-6

Kamile Geist, Associate Professor of Music Therapy, Ohio University, Athens, OH

Research suggests that children seem to show a high motivation to learn and participate in activities when music is used (Humpal & Colwell, 2006). What is it about music that grabs the attention of children and motivates them to learn and remember concepts for years?

Children listening to "steady beat"—even 5- to 24-month-old infants—were more engaged and exhibited greater rhythmic movement with music and steady beat than with speech (Zentner & Eerola, 2010). The author observed 3- and 4-year-old children exhibiting more engagement during mathematics lessons that incorporated steady beat in the instruction, as compared to direct teaching strategies during math lessons without music. Students also showed more active engagement during the activities when teachers used music-teaching strategies vs. verbal-only teaching strategies. Music can be effectively used to teach academic concepts, such as the alphabet, colors, or counting (Davis, Gfeller, & Thaut, 1999).

Teaching concepts through song can be easily incorporated into classroom instruction. Our simple strategy, called *Keep a Beat*, empowers teachers (musicians and non-musicians alike) to use musical elements while teaching, thus increasing all of the children's engagement.

How Does *Keep a Beat* Work?

Keep a Beat is as simple as it sounds. All you have to do is encourage students to keep the beat during instruction. It takes a bit of practice, but once you try the teaching strategy, you will find it can be used in many different ways

throughout the school day. The simplest way to incorporate a steady beat is to clap while chanting instructions. Chanting information can be used to convey academic concepts, give instructions, or teach procedures. *Keep a Beat* also can provide structure for transitions between activities. You can then change the tempo (increase/decrease speed) and dynamics (increase/decrease volume) to gain attention and increase student engagement.

During group time, a teacher can teach students the month, day, and year by using a calendar and begin by tapping her knees for eight beats while rhythmically chanting, "Everybody keep the beat; one, two, ready, go." (Then four taps.) "What month is it? (Two beats for the answer.) "October, October. What day is it?" (Two beats.) "Monday, Monday. What year is it?" (Four beats.) "2010, 2010!! We learned the month, day, and year. And we stop."

Best of all, the *Keep a Beat* strategy works effectively for students from pre-K through high school.

References

- Davis, W. B., Gfeller, K. E., & Thaut, M. H. (1999). *An introduction to music therapy: Theory and practice* (2nd ed.). Boston: McGraw-Hill.
- Humpal, M., & Colwell, C. (2006). *Early childhood and school age educational settings: Using music to maximize learning*. American Music Therapy Association Monograph Series.
- Zentner, M., & Eerola, T. (2010). Rhythmic engagement with music in infancy. *Proceedings of the National Academy of Sciences of the United States of America*, 107(13), 5768-5773.

... continued from page 4

child? In spite of any concern, any action is better than none. When you act, the abuser learns that another person does not feel that his or her behavior is appropriate, which often comes as a surprise. The child learns that he or she is not alone and without support. Advocating for the child builds hope, reduces isolation, and provides support that mediates the impact of emotional maltreatment. It also helps you to acquire the skills and experience to become an effective professional.

Myth #7: Teachers are not harmed by emotional maltreatment. When emotional maltreatment flourishes, everyone is harmed. By not taking action, you tacitly suggest that you approve of the treatment. But it does not end there. As you walk away, not only does the child experience negative

consequences, so do you. It is almost impossible for your self-esteem to remain intact if you walk away from a distressed child: teachers are harmed by emotional maltreatment of children.

Teachers, as well as the child's classmates, are often cast in the role of bystanders when their colleagues create emotionally hostile environments for children. Despite a desire to intervene, the teacher/bystander simply might not know *how* to help or not feel that he or she has the *right* to act. In many cases, the school culture supports emotional maltreatment, so in addition to the maltreatment of children, teachers may be experiencing maltreatment at the hands of their supervisors for any attempt to change that culture.

continued on page 6...

continued from page 5

HOW TO DEAL WITH EMOTIONAL MALTREATMENT IN YOUR CLASSROOM

Model the behavior you would like to see in your colleagues.

Start by creating an environment where your relationship with every student in your classroom is valued by you. Since you are a licensed professional, even the most challenging student is entitled to affirmation and your positive regard. In practice, this can demand your creativity, patience, tact, and skill. At a recent presentation, "Ms. Smith," a teacher with 40 years of experience, related a story about an "impossible student" everyone disliked. "Marc," she said, was the most irritating, exhausting student she had ever taught; every day felt like a struggle. Her efforts to remain evenhanded were rewarded at the end of the year. As she walked past a group of boys in her classroom who were working on a project and talking, one of them said, "Ms. Smith loves me." Without looking up from his work, Marc replied, "Ms. Smith loves us all." For Ms. Smith, this represented her defining moment as a professional educator.

Create an emotionally safe school culture. Critical interactions with children occur on the playground, in the hallways, and in the cafeteria. Take these opportunities to build relationships that make school a safe haven for children, perhaps the only safe haven when children live in poverty or chaos. Work to dispel myths about emotional maltreatment in schools. It can be as simple as listing the myths from this manuscript and asking colleagues to respond with what they think. This makes a good topic for an inservice discussion or an informal discussion during lunch. Make the time for talk and discussion. The bulk of social and societal change occurs when people realize, through education, awareness, and exposure, that change is needed. Persuasion, an appeal to goodwill, and a search for common areas of concern and commitment can help create a culture of nurturance and affirmation in your school—not just for children, but for the adults interacting within the system as well.

Build relationships with colleagues in peaceful times; do not wait for a crisis. Understand that change can be frustratingly slow. Not everyone will agree or be supportive. However, in a democratic society, this is how significant change occurs—through individual actions, followed by policy reform and legislation, whether the issue is emotional maltreatment in schools, the unacceptability of segregation and racism, ensuring equitable access to housing, the wearing of seat belts, or societal views on drinking and driving, or on smoking in public places.

Provide a support system for teachers who emotionally maltreat children. Very rarely, a teacher will intentionally maltreat a child, and this requires direct administrative

action. Most of the time, teachers who emotionally maltreat children believe they are acting within the appropriate limits of sanctioned practice. The basic principle at work in an emotionally safe classroom can be found in the primary tenet of the Code of Ethical Conduct established by the National Association for the Education of Young Children (NAEYC): First, do no harm (NAEYC, 2005, 3). In fact, the Code takes a step beyond and creates an obligation for teachers to cease sanctioned, traditional practices if it is shown that those practices are harmful to children. Discussions around this topic are a good way to encourage reflective practice and overcome the natural defensiveness teachers may feel when their classroom management performance is questioned. Clarify the lines between discipline and guidance.

Communicate with parents about emotional maltreatment. Make emotional health a topic of conversation at parent-teacher conferences. Help parents recognize signs of emotional health as well as behaviors associated with emotional maltreatment. Be on the alert for any changes in behavior, or regressive behavior: children under stress often withdraw, act out, or regress. Often, the addition of a program designed to foster relationship and emotional connection, or to reduce anxiety in areas that are stressful to many children, such as mathematics, can yield great benefits with minimal cost and effort. Three examples of such programs are offered as part of this newsletter: ArtBreak, Keep the Beat, and Reduce Math Anxiety!

References

- Benbenishty, R., Astor, R. A., Zeira, A., & Vinokur, A. (2002). Perceptions of violence and fear of school attendance among junior high school students in Israel. *Social Work Research, 26*(2), 71-87.
- Benbenishty, R., Zeira, A., Astor, R. A., & Khoury-Kassabri, M. (2002). Maltreatment of primary school students by educational staff in Israel. *Child Abuse & Neglect, 26*(12), 1291-1309.
- Garbarino, J. (1979). The role of the school in the human ecology of child maltreatment. *School Review, 87*(2), 190-213.
- Garbarino, J. (1987). What can the school do on behalf of the psychologically maltreated child and the community? *School Psychology Review, 16*(2), 181-187.
- Hamre, B. K., & Pianta, R. C. (2005). Can instructional and emotional support in the first-grade classroom make a difference for children at risk of school failure? *Child Development, 76*(5), 949-967.
- Hart, S. N. (1987). Psychological maltreatment in schooling. *School Psychology Review, 16*(2), 169-180.
- Hart, S. N., Brassard, M., & Germain, R. (1987). Psychological maltreatment in education and schooling. In M. Brassard, R. Germain & S. N. Hart (Eds.), *Psychological maltreatment of*

- children and youth (pp. 217-242). Washington, DC: Pergamon Press.
- Hyman, I. A., & Snook, P. A. (1999). *Dangerous schools: What we can do about the physical and emotional abuse of our children*. San Francisco: Jossey-Bass.
- Janson, G. R., & King, M. A. (2006). Emotional security in the classroom: What works for children. *Journal of Family & Consumer Sciences*, 98(2), 70-74.
- Janson, G. R., & King, M. A. (2010). Emotional safety in the classroom: The school counselor's role. In Bradley T. Erford (Ed.), *Professional school counseling: A handbook of theories, programs & practices*. (2nd ed., pp. 866-872). Austin, TX: Pro-Ed.
- Krugman, R. D., & Krugman, M. K. (1984). Emotional abuse in the classroom: The pediatrician's role in diagnosis and treatment. *American Journal of Diseases of Children*, 138, 284-286.
- Loring, M. T. (1994). *Emotional abuse*. San Francisco: Jossey-Bass.
- National Association for the Education of Young Children. (2005). *NAEYC code of ethical conduct and statement of commitment*. Washington, DC: Author.
- Shumba, A. (2002a). Teacher conceptualization of child abuse in schools in the new millennium. *Journal of Interpersonal Violence*, 17(4), 403-415.
- Shumba, A. (2002b). The nature, extent and effects of emotional abuse on primary school pupils by teachers in Zimbabwe. *Child Abuse & Neglect*, 26, 783-791.
- Sylwester, R. (1994). How emotions affect learning. *Educational Leadership*, 52(2), 60-65.
- United Nations General Assembly. (1989). *Adoption of the Convention on the Rights of the Child*. UN Doc. A/Res/44/25, New York.

Reduce Math Anxiety!

Eugene Geist, Associate Professor, Department of Teacher Education, The Gladys W. and David H. Patton College of Education and Human Services, Ohio University, Athens, Ohio.

For many children, learning math can be a traumatic experience that leads to a lifelong anxiety about interacting with mathematics (Turner et al., 2002). Many adults are perfectly capable of performing everyday mathematics calculations in personal, professional, and social settings (e.g., when working a Sudoku puzzle or balancing a checkbook), but when asked to solve a problem in an academic setting, they profess, "I am horrible at math" or "I hate math." Most of this attitude toward mathematics is created by teachers and the learning environments in which math is taught and learned.

Much of children's early understanding of mathematics is constructed when interacting with the environment, without outside intervention from adults or teachers. Around 1st grade, adults and teachers begin the process of "direct instruction" in mathematics, which often takes the form of high-stress memorization. This causes heightened anxiety in children (Popham, 2008), because it shifts the focus from concept construction using children's own mathematical thinking, to teacher-imposed methods of getting the correct answer and gaining fluency (e.g., timed tests).

Evidence exists that timed tests and similar high-stakes approaches to teaching mathematics are not achieving teachers' fluency objectives. Instead of helping children become fluent at computation and problem solving, these methods force students to overly rely on rote memorization. This, in turn, increases anxiety levels and makes mathematics a high-risk activity. Math anxiety does not come from mathematics but from the way math is taught in schools (Beilock, 2008). By integrating mathematics into everyday activities, building on children's natural mathematical ability, making mathematics relevant to children's lives, and, above all, avoiding high-stakes and high-stress activities and assessments (such as timed tests), we can eliminate the underlying causes of math anxiety.

There are less stressful ways to promote fluency in children than "timed tests." When children play games with cards or dice, they naturally want to become more efficient at adding numbers so that the game play moves faster. There is no need to reward children with stars or stickers or subject them to the stress of completing 50 questions correctly in one minute with no errors. Errors are natural parts of learning and when we attach shame to them, children develop unnecessary anxiety. Children are naturally drawn to mathematical and logical thinking. What teachers must do is make sure they do not ruin the experience for them.

References

- Beilock, S. L. (2008). Math performance in stressful situations. *Current Directions in Psychological Science*, 17(5), 339-343.
- Popham, W. J. (2008). Timed tests for tykes? *Educational Leadership*, 65(8), 86-87.
- Turner, J. C., Meyer, D. K., Anderman, E. M., Midgley, C., Gheen, M., Yongjin Kang, et al. (2002). The classroom environment and students' reports of avoidance strategies in mathematics: A multimethod study. *Journal of Educational Psychology*, 94(1), 88.