



**I.A.C.A.T.**  
Instituto Avanzado de  
Creatividad Aplicada Total

Revista **RecreArte 12**  
[www.revistarecreate.net](http://www.revistarecreate.net)

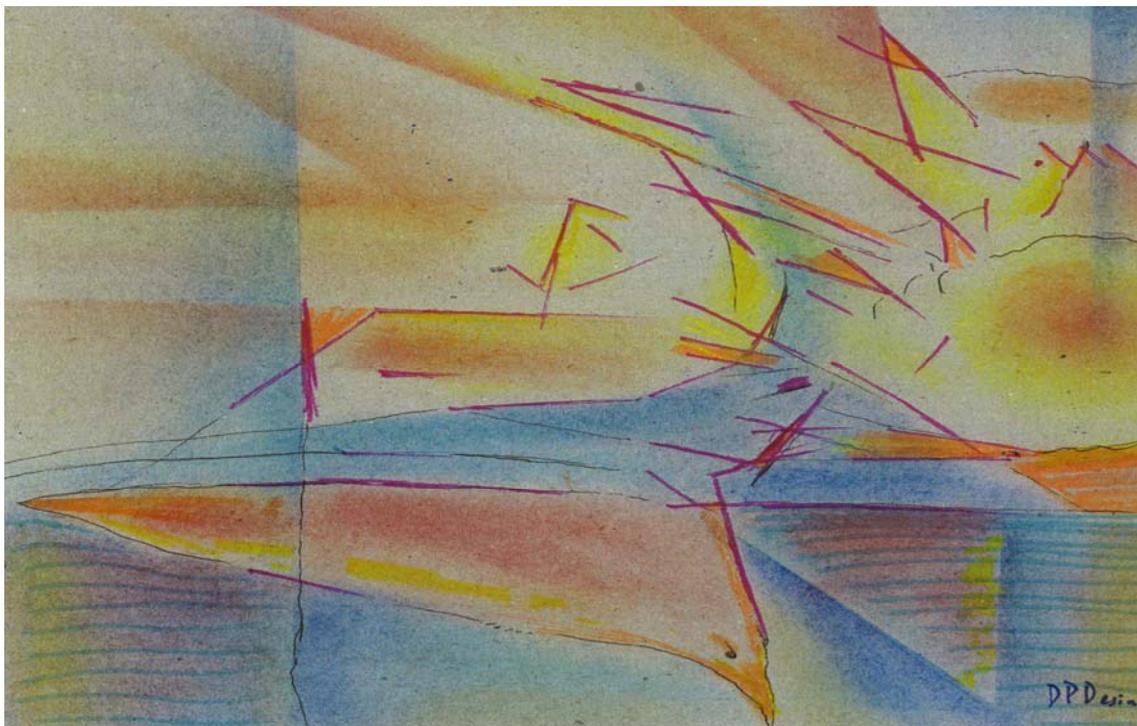


"La creatividad se enraiza, se desarrolla y se  
bloquea. Se expresa y consolida en múltiples  
lenguajes. Se estimula con técnicas eficaces"

**master oficial**  
**creatividad e innovación**  
2º ciclo U.E. - 120 créditos



Revista **RecreArte 12 > II** - Creatividad en Educación: Innovación Radical



*David de Prado Díez 2010*

**“The Gifted and Talented Student:**

**Taking a Closer Look at the Emotions, the Brain and Learning  
in the General Education Classroom”**

Mary Ann Smorra, Ed.D

Georgian Court University, Lakewood, NJ, USA

Emotions impact learning in all students. Emotionally charged issues including self esteem, test anxiety, social acceptance, and academic achievement are ongoing in the general education classroom. A recurring impression is that negative emotions do not apply to the gifted and talented student who “has it all together”. Negative emotions, however, do exist for the GT student and do elicit the level of anxiety and stress one would expect in any child or adolescent. The formula might be a little different. For example, some GT students may have the intellectual sophistication to analyze the problem eliciting undue anxiety; however, understanding the problem can also spur insight into negative consequences. With research suggesting intelligence is multi-dimensional, it is understood that academic intelligence is only one category of giftedness (Gardner, 1983; Sternberg, 1985). Regardless of the intelligence or talent area, however, the GT student has needs similar to every student in the general classroom. These needs exist in relationship to intellectual prowess, talent abilities, and most of all, emotions.

For the general education teacher, the goal is to help students realize their academic and personal potential. While creating a bridge between the general classroom and the needs of the gifted and talented student, the emphasis will be on the emotions, a brain-based learning perspective and corresponding practices.

**Feeling and Thinking...Mind and Body**

Emotions can be a potentially effective tool for learning or a roadblock to understanding. Current brain-based learning research highlights a teaching-learning journey continually modified through new technology and neuroscience exploration. Prominent neuroscience researchers like Damasio (1999) and

LeDoux (1996) point to the crucial role emotions play in the input, processing and retrieval of information.

So what happens when students have negative emotions? Are students who are chronically worried or angry or who experience an excess amount of negative feelings able to learn optimally?

Emotional pathways, whether positive or negative, can become entrenched. Like the cow path that eventually becomes a major highway, specific reactions can become a familiar route for an individual. In a negative, stress-related context—whether it's a test, a big project, or an upsetting confrontation at home—the emotional impact of the experience can be a disruptive force in any student's life.

Highly charged emotional issues shift attention away from everyday events. Our moods prioritize tasks. Stress can impact health. It can influence our day to day functioning and it can affect memory. As the level of stress builds, the limbic area, the structures at the base of the cerebrum that control emotions and play a role in processing memory become affected. High levels of comfort as opposed to high levels of stress can influence the ease with which students can process and store information in the brain. Additionally, dopamine, a neurotransmitter that affects attention and memory, is released when learning is enjoyable, and stress levels are low. (Willis, 2007).

What does stress mean to the gifted student in the general classroom? Negative stress affects the learning of any student, however, the gifted student might demonstrate this stress as an underachiever or an overachiever. The underachiever might feel a lack of challenge or choose to release pressure to excel by resorting to procrastination. The overachiever might feel the need to reach higher and higher standards as a perfectionist and concurrently generate stress that results in physical illness or emotional distress. In either scenario, stress, fear of failure or success, and self-esteem are involved (Kaplan & Geoffroy, 1993).

### **Paying Attention to Attention**

"The students are paying attention—they're just not paying attention to you," says

Robert Sylwester, a popular translator of brain-based research. Sylwester (2000) has also noted the impact of emotions on attention and attention on learning. For the students whose outside stressors become a focal point of their attention, your class is the last thing on their minds. Nonetheless, teachers should work to create an "emotionally friendly" environment by developing three areas: classroom community, student engagement, and meaningful learning.

**Classroom community.** Do students walk into a classroom and know they are known? We might spend 6–8 hours with our students during a school day. Why not take time to ensure the students feel a sense of belonging and that there's an invitation to succeed in that class? One technique is using a talking stick, as in the American Indian tradition, as a way for students to share information and be part of the greater classroom community.

In a secondary or middle school setting, community and student empowerment might take the form of reducing test anxiety. Allow students to be empowered by choices. If only one essay is to be given, can it be a take-home? If not, providing choices for essays, short answer, and fill-in-the-blank types of questions decreases test anxiety. A term widely used in the literature is "relaxed alertness," keeping challenge high while monitoring a low level of anxiety.

Additionally, through adolescence, the region of the brain, the prefrontal cortex, responsible for thinking, planning, decision making, and response to emotionally challenging situations is still developing. Much of what happens in the classroom is perceived through an emotional lens. Does the classroom communicate a sense of safety so that each student can use their intellectual and creative power, feeling comfortable to risk and express?

What about the gifted student? Are the social and emotional needs of this student considered? An area of potential stress for GT students is fear of being different from their peers. Although perceptions of their own giftedness may be positive, their feelings of acceptance as a whole person, with unique talents and feelings, is imperative (Kaplan & Geoffroy, 1993). A classroom community illustration is when a GT student goes to a special pull-out placement. What is the student's reentry into the general classroom like? Hopefully the student feels welcomed back and has the needed guidance to join the class in whatever is going on at that moment.

**Student engagement.** For many students, classes are dominated by lecture, note-taking, and in the earlier grades, a plethora of handouts. Engaging strategies such as cooperative learning—both traditional and jigsaw, think-pair-share or use of Socratic method—evoke student participation and provide opportunities to process information, thus increasing the ability to convert it from short-term to long-term memory. For example, in using the think-pair-share strategy, the teacher poses a question, and each student thinks of an answer, pairs up with a partner, and verbalizes the answer. Strategies incorporating

novelty, humor and the arts engage and hold the students' attention by personalizing the content and processes entailed. Another benefit is that these techniques deter students from "going on vacation" during class!

For the GT student, engagement might be in the context of the differentiated classroom where students of similar abilities, interests or learning styles have the opportunity to work with each other. Is a differentiated program, designed to challenge and support the gifted student, implemented in the general classroom? Of great importance is engaging all students; facilitating active participation in their own understanding and learning.

**Meaningful learning.** Students who are anxious, fearful, or beset with negative emotions tend to learn better in concrete ways. This is due to the active portion of their brains in the subcortical or limbic areas. When their attention is diverted to emotional issues and corresponding feelings, these students are less able to think in abstract ways.

Focusing on content, process, and product in order to provide meaning and relevance is an imperative part of their learning. For example, from a student's perspective, driver's education might be one of the most meaningful learning experiences in high school—its relevance to their lives is usually immediate. Not all topics in high school are as compelling. When we engage students in the input of information (content), use activities to develop their understanding (process) and hold them accountable for some type of output (product) that demonstrates their learning, we are inviting them to be present in our classrooms. Familiarity with a student's developed and undeveloped multiple intelligences, learning styles, and ability levels is helpful in charting a meaningful course of action in the classroom.

Examples of relevant, concrete learning might include involvement with the arts, reflective and interactive journals, and simulations and role-play. These experiences can elicit an emotional link, connect material to students' lives, and provide a lifeline to more complex and abstract material.

Additionally, the brain loves things that are familiar. The brain research supports the impact of connecting to what we already know by looking at the neural pathways and patterns that are developed, associated with and built upon. Add a positive emotional component, the relational aspect of these memories, and you've added to the storage strength of the new memories (Willis, 2007).

Gifted students are often able to grasp abstract concepts with alacrity beyond their peers. Helping students, however, to develop personal awareness in making meaningful decisions about their learning facilitates an intrinsic satisfaction that lowers stress (Kaplan & Geoffroy, 1993). Connections can provide the novelty, interest and experience that create a meaningful and joyful classroom environment.

### **In conclusion**

Whether they are welcomed or not, emotions will always attend class with the students who possess them! The three simple processes of building community, creating meaningful learning experiences, and engaging the learner can always upgrade the emotional environment of the general classroom --- for all students.

### **References**

Begley, S. (2008). *Train your mind, Change your brain: How a new science reveals our extraordinary potential to transform ourselves*. New York: Ballantine Books.

Demasio, Antonio. (1999). *The feeling of what happens: Body and emotions in the making of consciousness*. New York: Harcourt Brace.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books

Kaplan, L. & Geoffroy, K. (1993). Copout or burnout? Counseling strategies to reduce stress in gifted students. *School Counselor*, 40 (4), 247. Retrieved June 20, 2009 from Academic Search Premier database.

LeDoux, J. (1996). *The emotional brain: The mysterious underpinnings of emotional life*. New York: Simon & Schuster.

Smorra, M. (2008). The emotions, the brain, and learning in the classroom, *ASCD Express*, 20 (3).

Sternberg, R. (1985). *Beyond IQ: A triarchic theory of human intelligence*. New York: Cambridge University Press.

Sylwester, R. (2000). Unconscious emotions, conscious feelings. *Educational Leadership*, 58 (3), 20-27.

Willis, J. (2007). *Brain-friendly strategies for the inclusion classroom*. Alexandria, VA: ASCD.



**I.A.C.A.T.**  
Instituto Avanzado de  
Creatividad Aplicada Total

### Revista Recrearte:

- ✓ *Director David de Prado Díez*
- ✓ *Consejo de Redacción*
- ✓ *Consejo científico*

Frey Rosendo Salvado nº 13, 7º B 15701  
Santiago de Compostela. España.  
Tel. 981599868 - E-mail: [info@iacat.com](mailto:info@iacat.com)

[www.iacat.com](http://www.iacat.com) / [www.micat.net](http://www.micat.net) / [www.creatividadcursos.com](http://www.creatividadcursos.com)

[www.revistarecreate.net](http://www.revistarecreate.net)

© Creación Integral e Innovación, S.L. (B70123864)

*En el espíritu de Internet y de la Creatividad, la Revista Recrearte no prohíbe, sino que te invita a participar, innovar, transformar, recrear, y difundir los contenidos de la misma, citando SIEMPRE las fuentes del autor y del medio.*