



## **NASET's Practical Teacher**

### **The Educational Benefits of Art Museums for Students with Disabilities**

**By Carla L. de Blas**

This issue of **NASET's Practical Teacher Series** was written by Carla L. de Blas. There is perhaps no better way to introduce diverse students to what they can do than by encouraging exploration of the arts. High stakes testing often takes precedence over art appreciation and thwarts students' much-needed exploration of a uniquely human form of expression. Purposeful museum initiatives that celebrate diversity, promote literacy, and enhance social and emotional development abound, yet the educational benefits of art museums for students with disabilities are often overlooked. Art museums are actively working to create inclusive experiences for individuals with diverse abilities. Many curators aim to make the offerings enjoyable and easy to engage with regardless of disability or age. Embedding the visual arts to individualize and contextualize learning in instructional planning can foster a variety of learning experiences that expand background knowledge, support comprehension, build emotional well-being, and improve language development. An integrative approach to visual stimuli, language, and motor movement may build task initiation skills and support self-esteem. Special education teachers can feed both intellect and spirit through the work art museums are doing to provide inclusive learning. Thus, teachers committed to supporting students of all abilities and backgrounds with resources for formal, self-directed, or informal learning can readily access the educational benefits of art museums to address their intentional teaching aims.

---

#### **Abstract**

There is perhaps no better way to introduce diverse students to what they can do than by encouraging exploration of the arts. High stakes testing often takes precedence over art appreciation and thwarts students' much-needed exploration of a uniquely human form of expression. Purposeful museum initiatives that celebrate diversity, promote literacy, and enhance social and emotional development abound, yet the educational benefits of art museums for students with disabilities are often overlooked. Art museums are actively working to create inclusive experiences for individuals with diverse abilities. Many curators aim to make the offerings enjoyable and easy to engage with regardless of disability or age. Embedding the visual arts to individualize and contextualize learning in instructional planning can foster a variety of learning experiences that expand background knowledge, support comprehension, build emotional well-being, and improve language development. An integrative approach to visual stimuli, language, and motor movement may build task initiation skills and support self-esteem.

Special education teachers can feed both intellect and spirit through the work art museums are doing to provide inclusive learning. Thus, teachers committed to supporting students of all abilities and backgrounds with resources for formal, self-directed, or informal learning can readily access the educational benefits of art museums to address their intentional teaching aims.

**Keywords:** students with disabilities (SWD), autism spectrum conditions (ASC), emotional and behavioral disorders (EBD), cognition, intentional teaching, neuroanatomy, visual art, language development, emotional development, executive functions, task initiation, procrastination, anxiety, self-esteem, brain damage, behavioral coordination, synchrony, sensory-friendly, diverse abilities, individualize, contextualize, initiatives, literacy, high-stakes testing, empathy.

## **Introduction**

Exposure to a wide range of activities, including visual art, can help address diverse needs in students. Beyond the functional utility that research ascribes to multi-sensory supports, art appreciation improves quality of life. Simply acknowledging the dimension of beauty in art and culture may expand background knowledge, support comprehension, build emotional intelligence, and instill deeper empathy in students who experience frustration and anxiety. In addition, greater focus on artistic beauty may inspire students with disabilities and/or pervasive academic and/or behavioral challenges with perseverance in the face of obstacles. Heilig and colleagues (2010) also suggest participation in arts education can improve cooperation, communication, adaptation, and reasoning skills. As students enhance their ability to appreciate art and become socially aware, they become more well-rounded. Moreover, creativity helps learners solve problems, develop new skills, and empathize. Hence, teachers who are deliberate about how to support learning and development can build on purposeful community initiatives that help students with disabilities become more confident in their knowledge and communication skills.

Intentional teaching aims to address higher social expectations for educational instruction and create inclusive learning environments that promote holistic growth for students with diverse learning needs. To this end, the visual arts offer an accessible and non-verbal means of learning for students who struggle with communication skills. For interventions which are less reliant on verbal communication Burns and Waite (2019) propose supporting diverse needs through the exploration of students' social and emotional funds of knowledge. Accordingly, the visual arts may hold overlooked benefits for individuals with autism spectrum conditions (ASC) or emotional and behavioral disorders (EBD) whose broad impairments in both self-referential cognition and empathy may affect their social communication and interaction.

Currently, research on the intersections of art and special education is dispersed among journals making these connections sometimes difficult to discern. However, Gerber, Keifer-Boyd, and Crockett (2013) assert “students with disabilities can excel in and through the arts” and “over the past decade, a small but growing body of research is beginning to document and demonstrate the importance of the arts in the lives of students with disabilities” (p. 11). By drawing students to the power of beauty, the arts may help introduce novel topics and stimulate sensibilities in ways other channels of learning simply cannot. The arts form a system of communication between the artist and viewer that often baffles expectations, challenges assumptions, and even transcends language.

## Art and Cognition

Though scholarship on the link between expressive response to artworks and both cognitive and emotional gains remains an area of study in need of further research, the relationship between art, discernment, language, and motor development is critical to special education. Case studies of artists with cognitive impairment due to brain damage suggest neither the functional specialization of the left nor the right hemisphere, nor any specific lobe or particular brain region, can explain art-related cognition (Bogousslavsky & Boller, 2005). Rather than relying on a single cerebral hemisphere, region, or pathway, art production requires redundancy of art-related functional representation involving the activation of several brain regions (Rose, 2004). In fact, major theories linking neurology and art point to redundancy in art-related functional representation and a multi-process cognition dependent on diverse brain regions.

Despite extensive unilateral or neurodegenerative damage, cases of unaltered talent and creativity indicate the production of art as a multi-process activity. Even after cognitive functions undergo severe deficits, individual techniques and personal artistic style tend to persevere until widespread neuronal connectivity is lost (Miller et al. 1996, 1998; Fornazzari, 2005; Drago et al. 2006; Cummings et al. 2008). With this in mind, Zaidel (2009) affirms the human brain's hemispheric asymmetry increases regional specialization by interconnectivity between neuronal densities such that the neuroanatomy and biochemistry control behavioral developments, including art production. Interestingly, artistic skill in painting, drawing or sculpting is largely preserved, regardless of the location or cause of the brain damage.

Based on the late arrival of artistic manifestations in evolutionary development, some linguists associate the appearance of novel shapes, marks, and forms with the emergence of precise words, formal structure, and meanings (Wade, 2006). According to Zaidel (2009), "critical changes in the brain that have been attributed to full-fledged art production have also been attributed to the simultaneous development of language" (p. 181). In fact, McNeill (1992) has suggested that planned meaningful hand gestures are speech related. In addition, Corballis (2003) has submitted that both hand gestures and facial expressions provided the initial jumping board for language development.

The universality of art compositions that elicit reactions of appreciation suggest elusive underpinnings of art in the human brain. Associated fundamentally with symbolic and abstract cognition, the immersion in the imitation of the beautiful forms and understanding what makes them attractive is a uniquely human activity. Though symbolic behavior is not limited to humans, only humans produce art. It is important to note that since both art and language rely on symbolic and referential cognition, increased development of language may be associated with the symbolic nature of art. Another key point, Zaidel (2009) maintains "localized brain regions and pathways links art to multiple neural regions" (p. 177). Still, the unique understanding in the transaction generated between an artist and viewer is nonetheless enigmatic (de Waal & Tyack, 2003).

### Art Museums for Students with Disabilities

Task initiation is an important life skill needed for transitioning between tasks and bonding. Lack of initiation of a response is a prevalent phenomenon that often needs to be addressed by special educators and is often an area of interest in the educational planning for students with disabilities. Integrating visual stimuli with verbal triggers intended to impact social interaction as joint actions may facilitate behavioral coordination and synchrony. Greaves-Lord et al. (2023) submit employing visual stimulation to bridge language with the initiation of a motor action to prompt students exhibiting limited response initiation due to tense muscles. Hence, art museums may offer valuable resources for students whose mild difficulties with task initiation increases

their anxiety and affects their academic performance. Art can boost moods, help to relax, and stimulate creativity. Because art provides unique ways for understanding, it may expand motivation to learn and help coordinate sensory and motor behaviors that undergird communicative cooperation (Latif et al, 2014).

Through its various movements and styles, art can support the exploration and expression of emotions as a means of communicating and connecting with others. Teachers and interventionists interested in targeting executive functions in approachable ways can utilize museum exhibits and activities that generate curiosity and increase background knowledge. Many museum initiatives include innovative sensory-friendly designs and customized programs with tailored activities for people of all ages with a range of disabilities. So, providing all students, regardless of their severity of disability, exposure to cultural and arts education is conducive to self-reflection, understanding, and well-being.

Art museums are actively working to create inclusive experiences. By incorporating sensory-friendly features and offering specially designed programs for all individuals, many museum curators aim to make the offerings enjoyable and easy to engage with regardless of disability or age. Sensory-friendly spaces present supportive settings with reduced sound and more comfortable lighting that help reduce agitation and anxiety while stimulating user reactions and encouraging communication. Museum spaces created specifically for people with autism, sensory processing disorders, global developmental delays and other special needs are more prevalent. In an effort to ensure everyone feels comfortable participating, many museums also offer noise-reducing headphones, sunglasses, and thoughtful manipulatives.

By preparing art museum visits based on visual guides highlighting potential sensory triggers, educators can make use of dedicated time slots with reduced crowds and adjusted sensory stimuli to reap the benefits of enrichment programs. Museums committed to supporting the full access and participation of their artistic recreational teaching programs also offer multi-sensory and interactive educational exhibits. Multi-sensory workshops can help introduce students to ideas in novel ways, develop fine motor skills, improve social skills, reduce stress and anxiety, practice creativity, and build self-esteem and confidence. Harnessing the transmission of ideas and emotion through color, texture, shape, and form to overcome chronic procrastination through the arts can also be fun (Power et al., 2023). If aesthetics can facilitate the ability to set goals, get started on tasks, prioritize the importance of different tasks, break tasks into manageable steps and complete them within a reasonable time frame, the educational benefits of art museums for students with disabilities are plentiful.

## **Conclusion**

Diverse students may develop their potential better when exploration of the arts becomes an intentional learning component. According to Gardner (1999), “most cultures, and certainly those that consider themselves to be highly civilized, do not need special arguments for including the arts in their schools. In the United States however, such automatic allegiance to the arts does not exist” (para. 4). High stakes testing often takes precedence over the arts and thwarts students’ much-needed exploration of this uniquely human form of expression. However, purposeful museum initiatives that celebrate diversity, promote literacy, and enhance social and emotional development abound.

Embedding the visual arts to individualize and contextualize learning in instructional planning can foster a variety of learning experiences. Visual supports often scaffold communication, learning, organization, and independence to help make academic gains. Relatedly, an integrative

approach to artistic visual stimuli, language, and motor movement may build task initiation skills and support self-esteem. Special education teachers can feed both intellect and spirit through the work art museums are doing to provide students with inclusive learning opportunities. Thus, teachers committed to supporting students of all abilities and backgrounds with resources for formal, self-directed, or informal learning can readily access the educational benefits of art museums to address their intentional teaching aims.

### Declaration of competing interest

None.

### References

- Bogousslavsky, J., Boller, F. (Eds) (2005) Neurological disorders in famous artists. *Frontiers in Neurological Neuroscience*. Karger.
- Burns, S., & Waite, M. (2019). Building resilience: a pilot study of an art therapy and mindfulness group in a community learning disability team. *International Journal of Art Therapy*, 24(2), 88–96. <https://doi.org/10.1080/17454832.2018.1557228>
- Burns, S., & O’Shea, R. (2017). ‘I like your new coat’: The emergence of secure base and sense of self and other through an art psychotherapy relationship. *International Journal of Art Therapy*, 22(2), 46–56. <https://doi.org/10.1080/17454832.2017.1287747>
- Corballis, M.C. (2003) *From hand to mouth: The origins of language*. Princeton University Press
- de Waal F.B.M., Tyack P.L. (Eds) (2003) *Animal social complexity: Intelligence, culture, and individualized societies*. Harvard University Press
- Cummings, J. L., Miller, B. L., Christensen, D. D., Cherry, D. (2008). Creativity and the brain: Emerging diagnostic and treatment methods for mental disease. *CNS Spectrum* 13, 1–20
- Drago, V., Crucian, G.P., Foster, P. S., et al. (2006). Lewy brain and creativity: Case report. *Neuropsychologia* 44, 3011–3015
- Fornazzari, L.R. (2005) Preserved painting creativity in an artist with neurological disease. *European Journal of Neurology*. 12, 419–424
- Gardner, H. (1999). *Intelligence reframed: Multiple intelligences for the 21st century*. Basic Books.
- Gerber, L. B., Keifer-Boyd, K., & Crockett, K. (2013). Including difference: A communitarian approach to art education in the least restrictive environment. *National Art Education Association*.
- Gerber, L. B., Keifer-Boyd, K., & Crockett, K. (2019). The road to DARTS: Recognizing the improbable and steering around the “no’s” *The Journal of the Arts and Special Education* 1(1), 5-24
- Gerber, Levett, Guay (2006). Doris M. National Art Education Association. Reaching and teaching: Students with special needs through art. *National Art Education Association*.

- Greaves-Lord, K., Alma, M., de Graaff, B., Landsman, J., van der Weide, K., Jagersma, G., Beskers, T., Wubs, M., Mandemaker, H., van Daalen, E., van der Linde, J., Stapert, A. F., Bekius, J., Piening, S., Landlust, A., & van Balkom, I. D. C. (2023). Clinical stance on response initiation in autistic adults: co-creating an integrative approach based on theory and lived experiences to act from language, via motor movement to wellbeing. *Frontiers in psychology, 14*, 1229596. <https://doi.org/10.3389/fpsyg.2023.1229596>
- Heilig, J. V., Cole, H., & Aguilar, A. (2010). From Dewey to No Child Left Behind: The evolution and devolution of public arts education. *Arts Education Policy Review, 111*(4), 136–145. <https://doi.org/10.1080/10632913.2010.490776>
- Latif, N., Barbosa, A. V., Vatikiotis-Bateson, E., Castelhana, M. S., & Munhall, K. G. (2014). Movement coordination during conversation. *PloS one, 9*(8), e105036. <https://doi.org/10.1371/journal.pone.0105036>
- Lombardo, M.V., Barnes J.L., Wheelwright S.J., Baron-Cohen S (2007) Self-referential cognition and empathy in autism. *PloS one 2*(9): e883. <https://doi.org/10.1371/journal.pone.0000883>
- Miller, B., Ponton, M., Benson, F. D., Cummings, J. L., Mena I. (1996). Enhanced artistic creativity with temporal lobe degeneration. *The Lancet 348*, 1744–1745.
- Pan, Y., & Monje, M. (2020). Activity shapes neural circuit form and function: A historical perspective. *The Journal of neuroscience: the official journal of the Society for Neuroscience, 40*(5), 944–954. <https://doi.org/10.1523/JNEUROSCI.0740-19.2019>
- Power, N., Harrison, T., Hackett, S., Carr, C., (2023). Art therapy as a treatment for adults with learning disabilities who are experiencing mental distress: A configurative systematic review with narrative synthesis. *The Arts in Psychotherapy*.
- Rose, F. C. (Ed.) (2004) *Neurology of the arts: Painting, music, literature*. Imperial College Press.
- McNeill, D. (1992) *Hand and mind: What gestures reveal about thought*. Chicago University Press
- Wade, N. (2006). *Before the dawn: Recovering the lost history of our ancestors*. Penguin Press.
- Zaidel, D. W. (2009). Art and brain: insights from neuropsychology, biology and evolution. *Journal of anatomy, 216*(2), 177–183. <https://doi.org/10.1111/j.1469-7580.2009.01099.x>

### **About the Author**

Born in Miami, Carla L. de Blas attended Miami Dade College and is currently pursuing studies in Special Education and Museum Studies. Her love of the humanities centers on the “why” questions of aesthetics and an interest in critical reading through the study of literacy and culture. Experience as a guide at the American Museum of the Cuban Diaspora in Miami instilled a way of understanding art artifacts as mouthpieces for stories rooted in the perseverance of the human spirit. By pointing to the potential benefits of bridging special education with art appreciation, she hopes to improve learning outcomes for students with disabilities. Her aim is to stimulate learning through beauty based and helping students live more fully. She lives with her 12-year-old Maltese dog and her hobbies include art history, golf, and piano.