

Introduction To the Therapeutic Drawing Series



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Introduction to How to use Therapeutic Drawings Series

Over the last 2 decades, I have used the TDS successfully in my practice. In 2004, I went on to create a successful distance learning program for professionals. Along with the Trade Mark rights I earned the right to award my Trade Mark Seal as a *Credential* that graduates could use after their last name to help identify their specific type and level of training as “CDAT” or Certified in Del Giacco Neuro Arts Therapy.

The outcome based reports from these Certificate holders who have studied the [Scientific Basis of Del Giaccos Neuro Art Therapy](#), who have used the TDS in their practices over the last decade and around the world - are all the same. The Therapeutic Drawing Series Works and Works for the same reasons that I describe in this e-Book. Consistently then, the Therapeutic Drawing Series has demonstrated accomplishments in the following sensory and cognitive areas: Awareness, attention, visual spatial recognition, problem solving, hand-eye coordination, fine motor skills, visual scanning, short-term memory, auditory awareness, perception, response time, speech, analytical skills, logic, abstract thought, emotional endurance to stress, divided attention and speed of mental processing when using the video exercises.

The Therapeutic Drawing Series (TDS) is a set of 39 designs that are used as a part of Art Based Cognitive Rehabilitation program. The name of the program is [Del Giacco Neuro Arts Therapy \(DAT\)](#). There are 3 applications in the DAT program; TDS, the Cognitive Range of Motion Exercises (for developing mental imaging to assist with working memory) and Visual Spatial Computer Exercises (to assist with the speed of complex mental processing). It should be noted here, that individuals trained and Certified as “CDAT” and “CDATA” or Advanced level Practitioner are trained to be Cognitive Rehabilitation Specialists using the DAT art based methods and are NOT trained or Certified to be an Art Therapist and/or

a psychotherapist. The above mentioned Certificate holders are trained to observe their clients behavior and are skilled in when and how to refer to the appropriate licensed professional for Psychotherapy or Medical Treatment.

The primary purpose of Del Giacco's Neuro-Art Therapy is to help the client regenerate the sensory system at a decoding/encoding (for our purposes we use the two words interchangeably) levels in the brain while using developmental visual spatial exercises or the Therapeutic Drawing Series (TDS).

The specialty of Del Giacco Neuro Art Therapy (DAT) is designed to be supported by neuroscience's emerging views of neuro-plasticity. One could argue that all therapeutic processes are supported by the potential for neuro-plasticity. However, the DAT process is designed to have direct effects on the primary brain regions that deal with emotion and cognition, primary motivators for shifts in behavior, with corresponding neuro-plasticity. In addition, the DAT program is most importantly DEVELOPMENTAL and is adjusted to each clients needs.

For example, DAT approaches can help with numerous types of developmental and psychological issues such as anxiety disorders, major depression, and PTSD. DAT can just as effectively have immediate effects on attention deficit disorder and learning disabilities. Clients with PTSD can connect to their traumatic experiential losses and express themselves easily. Another example would be someone with a learning disability: after using the DAT process, they may suddenly spark into a level of attention that was not possible prior to using the DAT arts-based method.

In addition, many neurologically based problems can be helped with the DAT process. Some of these are: traumatic brain injury, stroke, Alzheimer's disease, and brain tumors. One such client with Alzheimer's disease had been functioning at lower levels of consciousness, after a few therapeutic sessions the client seemed to "wake-up." He became more aware, his thinking became clearer, he started to interact socially, became more aware of his environment and slowly over time his overall quality of life improved.

The DAT method is designed to specifically work within the limbic system. This type of work is done for three reasons 1) to rebuild brain pathways, 2) to relieve stress and 3) to provide cognitive rehabilitation. Each of these brain functions are believed to occur within the anatomy of the limbic system. There are several major components to the limbic system and other less known sub-systems. In this article I will discuss two parts of the limbic system, the amygdala and the hippocampus.

The amygdala is known for the part it plays in our emotions and the hippocampus is acknowledged for its involvement with memory. Both the amygdala and the

hippocampus is dependent on sensory processing and decoding information occurring properly. However, if these two parts of the brain become compromised, either from long-term stress or disease, chemical changes that damage neural networks occurs. As the brain's chemical processing becomes altered, so does the anatomy of the limbic system. Perhaps, it is then the way we experience ourselves and the way we know the world that can seem to change. For example, in depressed people the hippocampus has been shown to shrink 10 to 20 percent. These changes can also lead to negative effects on memory and the inability to handle everyday stress. (Robert Sapolski, Taming Stress, Scientific America, 2003.)

In the case of Alzheimer's disease, the hippocampus is the first area to experience negative anatomical changes. When changes to the hippocampus occur, the person is less likely to comprehend shapes, learning becomes problematic and memory problems are not far behind. Needless to say, while these negative anatomical and chemical changes are occurring, stress roars its ugly head and gains our awareness by causing anxiety to occur more frequently. At this stage, we may visit a doctor and their typical response is to recommend medication to help us cope. However, behavioral work with an art based DAT approach can train a person for the life skills needed for everyday life.

Each DAT therapeutic application is designed to work specifically within the limbic system. Since we know that significant sensory processing occurs within the limbic system, and that neuro-plasticity encourages the act of regeneration, it would follow that using sensory stimuli via color, visual/motor and spatial exercises would help to rehabilitate the hippocampus's ability to grow and change in shape helping the brain to generate new pathways.

As an example for the use of spatial exercises in rehabilitation, Neuro-surgeon Dr. Mark Vernon designed abstract shapes as cognitive rehabilitation exercises and mentioned the visual spatial exercises that are helpful for memory restoration. Brain Power, Mark Veron, 1989.

Additionally, Dr. Richard Haier a psychiatrist from the University of California-Irvine completed several complex visual spatial clinical studies incorporating visual complex motor tasks. These clinical studies demonstrated increased involvement in the limbic system in the areas connecting to attention. Plus, a significant increase in IQ was noted for successful participants. (Haier, J. Richard, Siegel, Benjamin, Tang, Chuck, Abel, Lennart, Buchsbaum, S. Monte, 1988.)

Although Haier's studies were done within the context of a video game, the study also documents the use of graphic arts. Additionally, the participants of the study used motor functions to solve complex visual spatial problems. The geometric designs had color and shape that required deciphering placement in a space for accuracy.

The graphic arts in Haier's study used shape, color and visual/motor movement in the same manner that we use them in the DAT process. Therefore, it could be concluded that Haier's study inadvertently provided us with important information for the DAT Neuro Art Therapy method. I believe, when we are using our hands in an exercise and requesting the visual brain to translate the meaning of shapes, we stimulate the limbic system. These neuro-dynamics may be a significant reason for the amount of changes occurring in the limbic system during these studies and in the generally positive responses to the DAT interventions.

More advanced thinkers like Eleanor A. Maguire, a professor of Cognitive Neuroscience at the University of London mentions in her study of taxi drivers that the hippocampus is the seat of spatial reasoning, memory planning for the future and is located in posterior hippocampus-the spatial processing center. Let's recall that the spatial processing center is the first to be disturbed in Alzheimer's patients and often causes reasoning and planning to decline. It would follow that a program designed to work within the hippocampus and the limbic system-such as DAT-would be of primary benefit to reestablish functions within the visual spatial center of the brain.

Maguire is quoted as saying that these findings "May have relevance for helping design better rehabilitation programs for cognitive impairments and improving memory in the elderly." What I have found in my practice, is that when a client begins the interpretation process-hippocampus stimuli-of the Therapeutic Drawing Series it is then that the seemingly magic happens; the client reconnect to cognition, the clients awareness is there and critic thinking ensues as the developmental process continues in our therapy sessions.

For a more formal explanation of the human brains capacity to process spatial information or the VSE factor Marian Tsanov and Dennie Manahan-Vaughan provide us just what is required in their article *Synaptic Plasticity from Visual Cortex to Hippocampus: Systems Integration in Spatial Information Processing*.

These fine authors are from the international Graduate School of Neuroscience and Medical Facility, department of Experimental Neurophysiology, Medical Facility, and Ruhr University Bochum, Germany. "In this review, we summarize recent findings with regard to the expression of dynamic synaptic plasticity in the visual cortex and how this plasticity may influence information processing in the

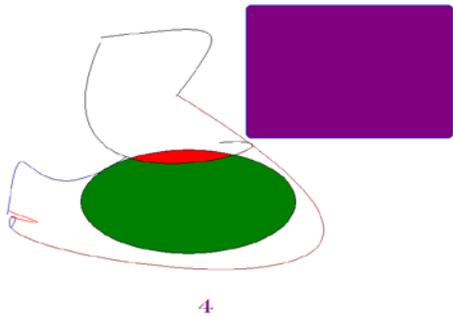
hippocampus. Tsanov and Manahan-Vaughan state in their article that the adult cerebral cortex possesses the remarkable ability to change its neuronal connectivity through experience, a phenomenon termed “synaptic plasticity.” Synaptic plasticity constitutes a cellular mechanism that is thought to underlie information storage and memory formation in the brain, and represents a use-dependent long-lasting increase or decrease in synaptic strength. Recent findings, that the adult visual cortex undergoes dynamic synaptic plasticity that is driven by active visual experience, suggest that it may be involved in information processing that could contribute to memory formation. The visual cortex provides a crucial sensory input to the hippocampus, and is a key component for the creation of spatial memories. An understanding of how visual cortical neurons respond with synaptic plasticity to visual experience, and whether these responses influence the induction of hippocampal plasticity, is fundamental to our understanding of the neuronal mechanisms and functional consequences of visual spatial information processing.”

Source: NEUROSCIENTIST 14(6):584-597, 2008. DOI: 10.1177/1073858408315655,

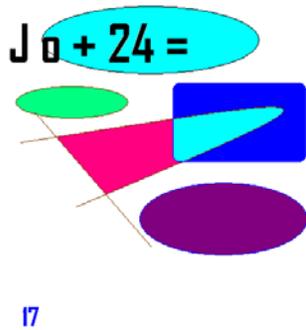
Therefore, it would follow that using abstract drawings would make sense to use as a form of cognitive rehabilitation. To continue with the explanation of how to use the TDS, in the brain damaged client once we have stabilized the sensory system as much as possible we can help the client manage their Neuro-Distress levels. After gathering our assessment information we are safe to use color, shape, and design to help develop the client’s encoding/decoding mechanisms.

Here are 3 examples of the Therapeutic Drawing Series.

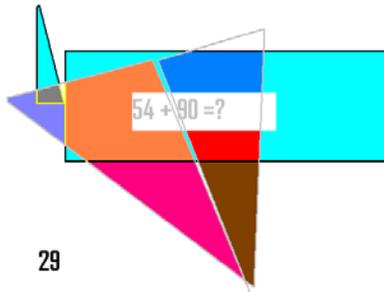
Number 4 (below) is the introductory level.



Number 17 (below) is an example of the Intermediate level.



Number 29 (below) is an example of the Advanced level.



How to use the Therapeutic Drawing Series

The 39 Therapeutic Drawings are placed in a Developmental sequence: Beginning, Intermediate and Advanced. When the client reaches a certain level cognitive and visual spatial level, math problems have been added to encourage Bottom's-up (sensory) to top-Down (cognitive) connections. All of the designs can be done at 3 different levels of therapy to the client: Passive, Semi-active and Active. The Passive level is designed to be the least stressful to the client. Semi-active is placing more stress on the client with brain injury and the Active being the most stressful or most difficult method of performing the exercises.

Try to use the drawings from beginning to end as they are numbered. Sometimes when a client is doing well, you may move a head and then go backwards. This type of back-and-forth application helps the client to function at a comfortable level and the moving ahead one drawing prepares the new pathways for the next level. As you have the client move back again in drawings – it does not have to be the same drawing that you started with – doing this type of activity may even prove to will relax some clients. **For others is may aggravate them.**

The back and forth theory is relative to working out in the gym. Start at a comfort level, increase a little, and then cool down with lower comfort level before leaving the gym. You may also do this with the video exercises. It is good to shift back and forth between the video exercises and the drawings. Be sure to be mindful of Neuro-distress and check in with the client often.

How to Use the Therapeutic Drawings Series (TDS) in individual sessions:

1. To begin, place a piece of paper (you can decide the size of the paper) on the table in front of the client, (for some clients you may want to tape the paper down). Have the

client work with a box of multi-color pastels or crayons. You may also use, paint, water colors, pencils, magic markers and with some clients I have had them use clay to make the shapes. I have found that working with the softness of pastels seems to relax the client. The later is also true for clay.

2. Make a black and white copy of the drawing and then cut out the shapes. Ask the client to place the shapes on the paper in the exact placement as seen TDS copy. If need be, use a ruler to point out the exact distance so that the client has something to “hang-on to” or remember better and perceptually in their mind. This process is designed to engage a more accurate process of rebuilding the Neuro-Pathways. You may do the same for the color copies. Having the clients use their hands is an important aspect of this therapy; use this process as much as possible.

3. You may copy the drawings (full page) and have the client color them in. This action will help the client to understand shapes before they begin the interpretive process of their copy their own drawings.

4. Have the client draw their own interpretation of what they see. Always tell the client that it is not necessary to make an exact copy of the drawing as an artist would. The drawings are about the effort of “trying” that will grow the new pathways for the client.

5. Have the client paint the shapes. The mediums of water color, acrylic and oil paints are very relaxing for the client. You may also use an 18” by 24” painting or drawing paper; first copy the drawing from the flip chart to the larger size paper. Then give your client a piece of the larger paper, ask them to have fun and copy it as “they interpret” it, just like the great artist Picasso would have done.

6. If the client is resistant to copying the shapes on the 18” by 24” paper, or if the shapes are just too hard for the client in the beginning, then let the client do a free non-directive exercise and simply move the paint brush –loaded with paint- while playing soft gentle music for the client. Encourage the client not to think about what they are doing in this exercise; just encourage the client to move gently to the sound of the soft music. Have the client try to imagine touching the gentleness being heard. Rebuilding a nervous system can be a scary process.

7. When the client demonstrates an ability to use the drawings and the client is comfortable with using the shapes, you may “time” the client to see how long it is taking for her/his interpretation. In the beginning, the client is very slow in their interpretation of the TDS and then as they progress their speed will too.

8. Always get feed back from a client when you begin an exercise, in the middle of an exercise and at the end of an exercise. Clients are the ones who will give you the information that you need in order to assess their progression.

9. Never push a client. Use the Neuro-Distress assessments and always be cautious and aware so as to not overload the client.

10. Progression should be seen from week to week. If not, I would suggest not using the Drawing Series. Try another method.

11. To make the exercise more difficult have the client combine the designs. Then ask your client to compare their drawing to the original to “see” the differences. For example, how is the new design different compared to the originals? How are the colors and the shapes different from the originals?

12. The clients can use clay to reproduce the designs. Changing the shapes as they go along is fun. But ask the client to explain how the shapes are different from the original design.

13. You may use an exercise that is multi-task and/or sequential. Have the client copy the drawing exactly as it is seen; have the client cut the shapes copies; have the client change the angles of the design and create her/his own shapes; have the client compare the shapes to the original drawing; have the client make clay shapes out of the new design and have the client combine the shapes to make an abstract sculpture. Sometimes, you can bake the clay or air dries it depending on the type of clay you are using and then paint it when dry. This kinesthetic (hands-on) type of learning should be used as much as possible. It helps to incorporate as many of the senses as possible. But, go slow here, because these designs can be very hard on the client.

14. When sculptured shapes are available you can do an imagining exercise with your client and ask the client to feel the shape as she/he draws it in their mind’s eye. Then have the client try to draw the shape as best as she/he can.

Examples for Using the Therapeutic Drawing Series in Group Sessions

1. Let everyone in the group look at one of the designs. Take a large tablet of 18” by 24” of Painting Paper and tape it to the wall. First you will have to reproduce the smaller design from the Flip Chart or you can create one of your own. Then divide the design – the one that you have placed on the wall - into a boxed grid that equals the number of group members. You can draw the grids with red or some other color that will be noticed easily –people with neurological problems often have associated vision problems. - Next, fold each of the group member’s paper into squared sections. Then ask each member of the group to draw an assigned section.

2. After they have completed this exercise, have them cut out the shapes and make a collage of the original design.

3. Have them talk as they go along as this promotes auditory memory.

4. Ask each member of the group which design they like the best. Then have them create a one dimensional sculpture of that design. Ask then what they liked about creating this shape and also what they found difficult to do.

5. For people who have Neglect -which is a -sensory deficit- usually affecting the left side of the body .The clients does not understand that they have a left-side of their face and or body. Neglect also affects the clients understanding of the environment. Neglect is a defect of the brain and can affect vision too. In cases the client may have Bi-lateral Neglect in this case both right and left sides of the body are affected. When clients progress in our program their Neglect recedes.

When working with Neglect It would be beneficial to ask clients to in the group to help the client with the Neglect syndrome: have participants walk up to a drawing that you have placed on the wall and point to shapes as they discuss the shapes placement on the paper. This will help them to retrain the brain.

Next, ask the group to talk about the shapes and what side of the paper they can or cannot see as well. Have them raise their left or right arms when saying what side they see the shapes on and what color they are. Do they like the shape? Do they like the colors? What would they do to make the shapes and/or colors more enjoyable for themselves?

6. Place a very long paper on a table or a Styrofoam panel 6 inches wide by 10 foot high. You can purchase these at most art supplies stores or a building supply company. Next paint the background color that everyone will enjoy. The colors can be multi-colors that each group member approves of. Always give your clients choices and control over their projects.

Next, have the clients create an abstract collage using, leaves, twigs, pictures, and what ever else they might like. There should be no specific theme to this project. The idea is to make it large and have some fun!

7. Allow clients time to think and talk together about their projects. Rest time should be encouraged frequently. Having a drink or some protein handy helps them to recharge.

8. Also, allow them time to create their own designs at home. Concentration levels will vary according to the task given to each client. Some will need more rest than others to complete a task. Let them know that they all need to go at their own pace.

9. Remember, copying a drawing requires less concentration and less neurological spending, than when you ask a client to think of a shape to draw from their imagination.

10. These drawings are hard for the client so go slowly and work at their pace, If need be, switch to a larger sized paper to accommodate the client's visual needs.

11. If you are working with clients who have paralysis in both hands then ask them where the shapes belong and try to get them to function at a more verbal level. Auditory memory is improved in that manner and so are analytical skills.

As always there are endless possibilities for using these designs. Try to make it fun for you and your client.

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