

Strengthening Musical Memory Using the Dunn & Dunn Learning Styles Perceptual Modalities

Below is a poster I presented at the National Conference on Keyboard Pedagogy, held from August 3 through 6, 2005, in Oak Brook, Illinois. My intention was to describe some of the cues I use to understand my students' preferred perceptual modalities, how I have learned to reach students who prefer particular modalities, and how I have learned to help them engage their less preferred modalities. Students who engage only one or even two modalities to memorize music are at risk for memory breakdown in performance. When they use simple tools to engage their other less preferred modalities, their memory in performance is more secure.

The perceptual modalities, defined within the poster, are kinesthetic, tactile, visual, and auditory. To answer a question many people had at the conference, yes, there is a difference between kinesthetic and tactile! Kinesthetic is whole-body movement, while tactile is feeling through the fingertips. Kinesthetic processors tend to be more fluid players who need to be reminded to listen, look, and relate their movement to the piano. Tactile processors tend to want to explore and experience the world through their fingertips. They wind up engaging the fingers in things fingers are not very good at: moving across (better left to the forearm, which can cover the distances), and down (also requiring the forearm, since the fingers have neither the strength nor the weight to put down keys by themselves without strain).

The perceptual elements represent only 4 out of 21 different elements measured by the Dunn and Dunn Learning Styles Model. The others are equally helpful to apply in the teaching studio. It can make a world of difference to a student if you can pick up on whether they need you to structure their practice or not, or whether they need you to work with them as an authority or as a friend. I recommend that you fill out your own learning styles profile at www.learningstyle.com, and have your students of high school age and above fill out their profiles too. Teachers who work with the profiles realize that their students have been giving them cues all along that they have missed. They start interpreting cues more efficiently, and the learning process speeds up.

Of course, perceptive teachers instinctively use many of the tools elucidated in the profiles and in my poster. As they become more aware of those tools by working with learning styles, they understand better why particular tools work, and when to apply them.

Strengthening Musical Memory Using the Dunn & Dunn Learning Styles Perceptual Modalities

Teresa Dybvig, DMA and Sarah Church, Ed.M

Memorizing through one modality can lead to breakdown. For strong memory, we need to memorize through all perceptual modalities: kinesthetic, tactile, visual, and auditory, as well as emotionally and intellectually.

Using the Dunn and Dunn Learning Styles Model, teachers can learn how to recognize students' preferred modalities, how to teach them through those modalities, and how to deepen their memory by engaging their less preferred modalities.

We tend to teach the way we learn best! Find yourself in the left column below. Look at the other ways of learning. See if you can learn new cues about ways other people learn!

How to recognize:	How to teach:	How to engage other modalities:
High Kinesthetic <ul style="list-style-type: none"> Naturally fluid players, in sports, dance. Learn by doing, will try as you explain. May not relate movement to piano. 	High Kinesthetic <ul style="list-style-type: none"> Have them ride your forearm. Demonstrate by moving their arms and hands. Have them try movements as you explain. 	High Kinesthetic <ul style="list-style-type: none"> Build awareness of sound, look, and touch. Eliminate kinesthetic with mental practice. Memorize look of hands. Link other modalities to body/arm movement: "Listen to the sound you make as you watch your arm move to touch the key that way."
Low Kinesthetic <ul style="list-style-type: none"> Clumsy, bumps into things. 	Low Kinesthetic <ul style="list-style-type: none"> Teach first through preferred modalities. 	Low Kinesthetic <ul style="list-style-type: none"> Build awareness of forearm and torso movement.
High Tactile <ul style="list-style-type: none"> Experiences, explores, even gestures, through fingertips. Loves arts and crafts, building things. 	High Tactile <ul style="list-style-type: none"> Help feel light lift and drop of fingers. Help feel peaceful contact between finger and piano. 	High Tactile <ul style="list-style-type: none"> Use forearm for across and down. Coach so they watch arms move, look ahead while reading. Keep them listening. Link other modalities to fingers: "Listen to the sound when you watch your arm move across to the next key so it can put your finger down."
Low Tactile <ul style="list-style-type: none"> May not sense geography of keys. 	Low Tactile <ul style="list-style-type: none"> Teach first through preferred modalities 	Low Tactile <ul style="list-style-type: none"> Cover up keys while they move distances so they guide by black keys
High Visual <ul style="list-style-type: none"> Notices colors, room design. May speak with visual verbs. Enjoys movies, TV. May not move without looking at music, then at keys – may be poor sightreaders. Also may not be able to imagine sound without playing with music. 	High Visual <ul style="list-style-type: none"> Demonstrate while they watch. Use videotape. Have them use their eyes to learn the look of new phrases, spot distances. 	High Visual <ul style="list-style-type: none"> Build awareness of sound and movement by having them sing melodies from their pieces with and without music, and covering keys Link other modalities to looking: "Listen to the sound and feel the light touch as you watch your hand move to touch the key."
Low Visual <ul style="list-style-type: none"> Some details of the music may escape their attention. May memorize quickly if looking at music is uncomfortable. Videotapes confusing. 	Low Visual <ul style="list-style-type: none"> Teach first through their preferred modalities. 	Low Visual <ul style="list-style-type: none"> Remind to look at music after memorizing, notice look of hands moving for memory.
High Auditory <ul style="list-style-type: none"> Many jazzers and composers are high auditory. Enjoys radio, recordings. May use "hearing" verbs. May talk to themselves or to their hands. 	High Auditory <ul style="list-style-type: none"> Audio record lessons. Have them repeat directions out loud. Suggest they imagine your voice during practice. 	High Auditory <ul style="list-style-type: none"> May need to be coached in looking, feeling, and touching. Link other modalities to listening: "Watch what your hand looks like when you touch the key lightly in order to get this sound."
Low Auditory <ul style="list-style-type: none"> Often playing isn't expressive. Audio recordings not useful. 	Low Auditory <ul style="list-style-type: none"> Teach to listen to the sound they produce. 	Low Auditory <ul style="list-style-type: none"> Use mental practice to memorize sound.

What are perceptual modalities?

Kinesthetic: relating to the body: for playing the piano, especially the torso and forearm

Tactile: relating to the fingers

Visual: relating to the eyes

Auditory: relating to the ears

Try this!

Ask your students to close their eyes and mentally practice a section, without moving, humming, or looking. Then ask:

- Did you imagine your arm moving from note to note? (the kinesthetic modality)
- Did you imagine a friendly contact between your fingers and the keys? (the tactile modality)
- Did you imagine the look of your hands on the keyboard? (the visual modality)
- Did you imagine the music sounding just the way you wanted? (the auditory modality)

Their answers will tell you a lot about their stronger and weaker perceptual modalities!

Try this!

See how your students do when you teach them through different modalities.

- Explain verbally without demonstrating (the auditory modality).
- Demonstrate without explaining verbally (the visual modality).
- Move their hands and arms without explaining verbally or demonstrating (the kinesthetic modality).
- Have them ride your hands and arms while you demonstrate without explaining verbally (the kinesthetic modality).
- Show them how to drop their fingers so they feel a soft contact with the key and ask them to feel that throughout a whole phrase (the tactile modality).

Try each several times. Make a note of how they respond to each one. Teach them through their strongest modalities and help them become comfortable with their less strong modalities.

Know your own learning style!

This study started with 39 students filling out the PEPS learning style inventory developed by Dunn, Dunn, and Price. You can too, by going to learningstyle.com and following directions to purchase and fill out the online profile for \$12.95.

The Dunn and Dunn Learning Styles Model measures 21 elements. Once you familiarize yourself with your own learning style, you will be better able to interpret cues your students are giving you.

We tend to teach the way we learn best! Therefore, it is easy to miss cues some of our students give us about the way they learn best, if they learn differently from us.

If you would like to consult about your or your students' profiles, you can contact us at BalancedPianist.com.

For further reading

Bodiniets, J., & Sabula, A. M. (1996). Achievement gains via instruction that matches learning style perceptual preferences. *Journal of Continuing Higher Education* 44(3), 15-24.

Cahill, L., McGaugh, J.L. (1995). A novel demonstration of enhanced memory associated with emotional arousal. *Consciousness and Cognition* 4(4): 410-421.

Cantwell, R. H., & Millard, Y. (1994). The relationship between approach to learning and learning strategies in learning music. *The British Journal of Educational Psychology* 64, 45-63.

Dunn, R. (1988). Commentary: Teaching students through their perceptual strengths or preferences. *Journal of Reading* 21, 304-309.

Dunn, R. (2000). Learning styles: Theory, research, and practice. *National Forum of Applied Educational Research Journal* 13(1), 3-22.

Dunn, R., & Griggs, S. (1998). Learning styles: Link between teaching and learning. In Dunn, R., & Griggs, S. (Eds.), *Learning styles and the nursing profession* (pp. 11-23). New York: NLN Press.

Goodby, T. (1994). Eye Movement in Music Reading: Effects of Reading Ability, Notational Complexity, and Encounters. *Music Perception* 12 (1), 77-96.

Green, J. (1996). Tuned in to Learning Styles. *Music Educators Journal* 88, 24-27.

Workshops

In *The Well-Balanced Pianist* programs, we have sessions focusing on Learning Styles, as well as general well-being, positive mindset, musicianship, and healthy piano technique. Learn more at www.WellBalancedPianist.com.