

# Multi-modality teaching: Modify your textbook to include all the senses.

Marc Helgesen marc@mgu.ac.jp  
Miyagi Gakuin Women's University, Sendai, Japan www.HelgesenHandouts.weebly.com

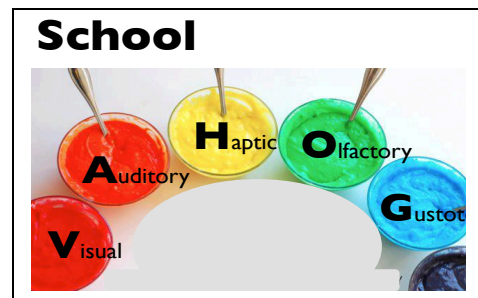
Sight. Hearing. Touch & movement. Smell. Taste. Baring a handicap, we all have all five senses. As teachers, we need to pay attention. All the information our students take in, they take in through those senses (Tokuhama-Espinosa, 2014).

While the senses are all powerful, smell and taste are not very flexible in the classroom. So this article will focus on the first three.

The awareness of sensory learning has lead to the increased interest in and understanding of multiple intelligences (Gardner, 2011) and learning styles. Unfortunately, it has sometimes been overgeneralized and oversimplified.

While we may have a main learning style or preferred modality (Rosenberg, 2013), that doesn't mean – and this is how it is often misinterpreted – that we should peg students as being one style and try to have them work in that style only: *You're visual so use these pictures. You're auditory so listen to this CD. And, as a haptic (tactile-kinesthetic) learner, get up and move around.*

While those particular activities may be useful for learning some content, other content may not fit. If you are doing a listening lesson, that's auditory. Pronunciation, because it is asking for production, also involves the haptic sense. And nearly everything involves vision. Schools have a tendency to divide things into nice, neat categories. They treat the senses like the paints in the separate jars in the pictures. Reality, is much more complex, like the picture below.



As teachers, we need to try to reach all the learners. Instead of trying to match each individual to a given activity, it is more practical to “teach across the senses”. – Try to include all the main senses in each lesson. That way, everyone gets input it ways they easily process, and they get experience with a variety of input (deJong, et al. 2009).



Medina (2014a) points out the power of multi-sensory input. In experimental studies, when learners have input in a variety of senses, they have greater recall than groups who received specialized input that was only visual or auditory. In problem solving tasks, learners who got multi-sensory input came up with 50-75% more creative solutions.

Perhaps they can “think outside the box” because no one put them in a box to begin with.

The image of a classroom is often the teacher standing at the front, talking. Look at this chart (Figure 1. Medina, 2014b). Notice that visual input results in much greater memory – obviously important for what we are trying to do as teachers. And when visual is combined with auditory, memory is six times as strong. For me, the take-away as a teacher, is that, yes it is worthwhile taking the time to make a PowerPoint or Keynote slideshow for the lesson. As long as it is really visual (pictures!) and not just words on a screen. (Ideas: www.presentationzen.com)

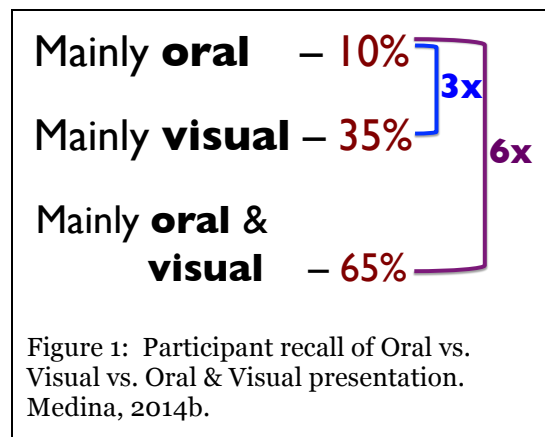












Figure 1: Participant recall of Oral vs. Visual vs. Oral & Visual presentation. Medina, 2014b.

Our textbooks are usually visual. Not only do they contain words and sentences, most modern textbooks are well illustrated. At times they come with audio CD but even if they don't, teachers talk and hopefully students do, too. Textbooks are often not as good at creating haptic experience. In the chart below, I've identified the things that textbooks do and ways to modify those activity to make it easier to teach across the senses. Try a few. I point out to my students what we are doing and why. I encourage them to notice which they like, so they can add them to activities on their own. When I plan classes, I try to make sure that **every lesson includes visual, auditory and haptic activities**. That way, I know all my students are getting experiences that *make sense to them*.

<b>Skill</b>  <small>This chart updated June 2014</small>	<b>Visual</b>  	<b>Auditory</b>  	<b>Haptic</b>   <small>(also called "tactile" (touch)/ "kinesthetic" (movement)</small>
<b>Listening</b>  	<ul style="list-style-type: none"> <li>• (Before reading) Give learners time to read though and do the warm-up task.</li> <li>• If their textbook comes with a CD, learners can review the listening as they look at the book. Or they close the book (and, perhaps, their eyes). They listen and imagine the scene, people, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Listening <i>is</i> auditory.</li> <li>• Let learners discuss how they understood. What information gave them the answers?</li> <li>• If their textbook comes with a CD, learners use it to review. They close the book. They repeat (mentally or aloud) the key words and information. (This is a type of 'shadowing'.)</li> </ul>	<ul style="list-style-type: none"> <li>• Make sure tasks include a physical response. If they don't, add one, e.g., add 'Touch the part of the picture they are talking about.'</li> <li>• If their book comes with a CD, have learners review the listening as they do something else. For example, they take a walk as they listen. Or they notice how they think the people feel.</li> </ul>
<b>Speaking 1: Dialogue practice</b>    <small>More at: <a href="http://tinyurl.com/dialogvariations">http://tinyurl.com/dialogvariations</a></small>	<ul style="list-style-type: none"> <li>• Textbook dialogues with recorded written texts are both visual and auditory. Just working with them is visual input.</li> <li>• Invite the learners to close their eyes and imagine the conversation, the scene, the speakers, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Textbook dialogues with recorded written texts are both auditory and visual. Just working with them is auditory input.</li> <li>• Learners close their eyes and mentally tune in to the conversation.</li> </ul>	<ul style="list-style-type: none"> <li>• Try Silent listen and repeat: Learners move their mouths and say the words with no sound (sub-vocalise). They notice mouth, tongue, teeth, etc.</li> <li>• Have learners stand and gesture as they practise.</li> </ul>
<b>Speaking 2: Pronunciation/ Working with the language map</b> (key/example sentences) for pair- or groupwork or	<ul style="list-style-type: none"> <li>• Write the language map on the board or call attention to the forms in the book.</li> <li>• Imagine the words. Note or change color/ printed versus handwritten, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Listen and don't repeat. Instead, learners imagine hearing their voices saying the sentences.</li> <li>• Mentally imagine the words with a</li> </ul>	<ul style="list-style-type: none"> <li>• Silent listen and repeat (see box above).</li> <li>• Tap the rhythm of the target sentences.</li> <li>• Get extra large rubber bands – ones with a width of at</li> </ul>

<p>other speaking activities. These techniques are mainly pronunciation tasks that focus the learner on key grammar/functional language.</p>  <p>More at: <a href="http://tinyurl.com/PronunciationSenses">http://tinyurl.com/PronunciationSenses</a></p>	<ul style="list-style-type: none"> <li>• ‘Mentally underline’ key words/grammar or stressed syllables.</li> </ul>	<p>strong L1 accent. Then imagine own voice with a native-like accent.</p> <ul style="list-style-type: none"> <li>• Say the sentences in nonsense syllables (DA da da), matching the rhythm. Then say the actual words, matching the stress.</li> <li>• Get a metronome to help students keep the rhythm.</li> </ul>	<p>least a centimetre are ideal. Learners stretch the bands on the stressed syllables as they practise.</p> <ul style="list-style-type: none"> <li>• March/dance around the room to the rhythm of the sentences.</li> <li>• Play “patty-cake”. In pairs, they mark the rhythm by clapping their own and their partners’ hands in rhythm.</li> </ul>
<p><b>Speaking 3: Pairwork or groupwork</b></p> 	<ul style="list-style-type: none"> <li>• Give learners time to look over the page/task/questions before they begin the task.</li> </ul>	<ul style="list-style-type: none"> <li>• Learners look over the questions in pairs. They clarify instructions. Talk about which look interesting to talk about (see haptic task).</li> </ul>	<ul style="list-style-type: none"> <li>• Give learners time to read the items before they begin. They might rate each item for interest. (☺ ☹ ☺) They begin with the most interesting ones.</li> <li>• Learners to change partners between tasks.</li> <li>• Play instrumental background music.</li> </ul>
<p><b>Speaking 4: Open-ended fluency work</b> (Task planning/mental rehearsal) More at: <a href="http://tinyurl.com/taskplanning">http://tinyurl.com/taskplanning</a></p>	<ul style="list-style-type: none"> <li>• Before a speaking task, learners look over the page/task and think about what they want to say.</li> </ul>	<ul style="list-style-type: none"> <li>• Learners think about what they want to say, then imagine the situation and listen mentally to the description.</li> </ul>	<ul style="list-style-type: none"> <li>• They think about what they will say. They can try subvocalising (saying it silently) or mumbling.</li> </ul>
<p><b>Reading</b></p> 	<ul style="list-style-type: none"> <li>• Reading <i>is</i> visual.</li> <li>• Invite the learners to imagine the pictures (watch the movie in their minds) as they read.</li> </ul>	<ul style="list-style-type: none"> <li>• If the text is available in audio format, have them listen as they read.</li> <li>• They read silently but as they do, they imagine the sounds of the words.</li> <li>• They read the text aloud to a partner (or even to themselves). Some may want to read silently for meaning first, then read it aloud.</li> </ul>	<ul style="list-style-type: none"> <li>• If appropriate, have them use highlighter markers to note key words/ideas.</li> <li>• Get pastel vinyl folders. Learners put whatever they are reading inside and read through the folder. (This is similar to using the Irlen screens that many dyslexic readers find helpful. For more on this, see Irlen. 2005)</li> </ul>

<p><b>Writing</b></p> 	<ul style="list-style-type: none"> <li>• Encourage learners to ‘imagine the movie in their minds’ of what they will write.</li> <li>• They proofread backwards (right to left) to slow down, notice spelling, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Learners talk (to themselves or a friend) about what they are going to write.</li> <li>• They proofread by reading aloud.</li> </ul>	<ul style="list-style-type: none"> <li>• When thinking about what they will write, they can make notes/ideas on slips of paper or post-its. This makes it easier to rearrange the order.</li> </ul>
<p><b>Independent practice</b> (homework)</p> 	<ul style="list-style-type: none"> <li>• Learners can look around and think about how to describe what they see in English.</li> </ul>	<ul style="list-style-type: none"> <li>• Learners can talk to themselves (silently or aloud) in English.</li> <li>• They can listen to music and really think about the meaning.</li> <li>• If their book comes with a student CD, they close the book and then listen and imagine the scenes.</li> </ul>	<ul style="list-style-type: none"> <li>• Encourage learners to learn how to do something in English, e.g. take some kind of lessons. Instructions on video may be useful. Or even getting an English cookbook and talking themselves through a new recipe as they make it.</li> <li>• They can just take a walk and talk to themselves in English.</li> </ul>

**Notes:**

An earlier version of the chart appeared in Helgesen, M. (2008) Making Sense of it all. *English Teaching Professional*. 54. 46-47 and in Ma, Jee Hyun (ed.), *Accommodating Individual Difference in English Education*. Jeonju, South Korea: GETA. 9-17.

The source of the paint images is unknown. I would appreciate any information about the source so I can attribute them correctly.

**References:**

de Jong, T., et al. *Explorations in Learning and the Brain*. New York: Springer.

Gardner, H. (2011) *Frames of Mind: The Theory of Multiple Intelligences 3/ed*. New York: Basic Books.

Irlen, H. (2005). *Reading by the colors* (2<sup>nd</sup> ed.). New York: Perigee Trade (Penguin).

Medina, J. (2014) *Brain Rules: (Updated and Expanded): 12 Principles for Surviving and Thriving at Work, Home, and School, 2/ed*. Seattle: Pear Press.

Medina, J. (2014b). Downloaded May 20, 2014 from [http://brainrules.net/vision.\(slide 3\)](http://brainrules.net/vision.(slide%203))  
Based on Najjar, LJ (1998), “Principles of educational multimedia user interface design” *Human Factors* 40(2): 311 – 323.

Rosenberg, M. (2013) “All Aboard!” *English Teaching Professional*. 86. 4-7.

Tokuhama-Espinosa, T. (2014) *Making Classrooms Better: 50 Practical Applications of Mind, Brain, and Education Science*. New York: Norton.