



## Pedagoggles: Exploring Teaching Practice - Vol. 2 No. 2 (v1.0) Teaching to a Variety of Learning Styles

All Pedagoggles: <http://edu.georgianc.on.ca/faculty/aboelryk/Pedagoggle/Pedagoggles.htm>

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### Lens on Learning Theory

In the next few pages, we deal briefly with two dimensions of learning styles: sensory preferences, and brain-dominance. These are only two of many aspects that contribute to learning style. W.J. McKeachie expresses well the link between learning style and teaching in the following excerpt.

A [teaching] method appropriate for most students may be ineffective for other students... Methods of teaching, ways of representing information, and personality characteristic all affect learning and affect different learners differently. Thinking about learning styles can lead a teacher to consider different ways of teaching, and that is good. An effective teacher needs to vary techniques and to have an armamentarium of teaching methods and learning activities that can be drawn upon ... to facilitate maximum learning for as many students as possible.

**Sensory preferences** are the most common way to discuss learning style, but only relate to the way learners prefer to take in information, not how they process it.



**Auditory Learners** remember information presented orally and prefer to talk about information or hear someone else talk about it.



**Visual Learners** remember visual details and prefer a visual representation of information (charts, diagrams, written instructions).



**Kinesthetic Learners** learn by doing and prefer learning that involves movement, active participation, and concrete objects.

**Brain-dominance research** shows that learners' dominant side of the brain affects how they process information and engage in mental activities (i.e. computations; reasoning, developing concepts; organizing, summarizing and analyzing information).



#### **Left-Brain Dominant**

- Processes information in a linear fashion (from part to whole –details first)
- Approaches learning in a sequential and logical manner and absorbs new information by connecting it to previous information
- Enjoys learning facts and focusing on details
- Expresses themselves well using words



#### **Right-Brain Dominant**

- Processes information holistically (from whole to part – big picture first)
- Approaches learning in a random and intuitive manner
- Enjoys abstract ideas and considering possibilities
- Expresses themselves creatively better than using words

### Reflection on Practice

1. What are the characteristics of your preferred learning style, and how does that impact on your teaching?
2. Which learning-style needs are best met with your teaching methods? Which learning-style needs are not met particularly well?
3. How can you encourage your students to strengthen the skills needed to function in a learning environment that is not suited to their predominant style?

## Expanding Your Teaching Toolkit

It is impossible to teach based on students' individual preferences. However, including a variety of instructional strategies will improve everyone's learning. It is important for students to adapt to a variety of learning situations, so it is also useful to provide suggestions and structures to support learning weaknesses. Below are a number of ideas for engaging learners as well as strategies for students to apply.



### **Auditory Learners**

#### *Ways to engage auditory learners*

- Provide opportunities for discussion
- Have students explain step by step processes verbally as they are working through a task or problem
- Provide oral as well as written instructions for assignments and learning tasks

#### *Learning strategies for auditory learners*

- Read the textbook material and your notes out loud or into a tape recorder
- Discuss course ideas with your peers (study group or study buddy)
- Talk your way through problems step by step
- Invest extra time and energy in trying to understand diagrams, charts, and other visual representations of learning materials
- Tape record lectures
- Talk to someone else what you have learned



### **Visual Learners**

#### *Ways to engage visual learners*

- Provide opportunities for students to represent ideas and concepts visually (i.e. mindmaps, diagrams, graphs)
- Use visuals to reinforce concepts (pictures, diagrams, flow charts, concept maps, schematics, timelines, videos, props, wall charts & posters)
- Use color coding to show connections whenever appropriate
- Create charts or tables that students can use as graphic organizers
- Provide written as well as oral instructions for assignments and learning tasks
- Use metaphors or descriptive passages to reinforce a concept
- Distribute lecture guides to help students focus in on important information

#### *Learning strategies for visual learners*

- Draw visual representations of topics, notes, and concepts
- Convert notes into chart or matrix formats
- Use mind-mapping to depict connections between various aspects of a topic
- Create mental images to various concepts and chunks of information
- Use highlighting to organize ideas (highlight different kinds of information in contrasting colors)
- Create post-it notes with key information to review for tests
- Invest extra energy in trying to listen in lectures and capture the main points in writing
- Mark up the margins of your textbooks and lecture notes with key words, symbols etc.
- Look at instructor to help you focus on what they are saying



## Kinesthetic Learners

### *Ways to engage learners kinesthetic learners*

- Give students opportunities to move around during the class (use role plays, student demonstrations etc.)
- Use concrete objects as part of the teaching/learning process (post-it notes, flipchart markers, flash cards, props, index cards, puzzle pieces)
- Have students build models to represent a concept
- Take learning outside of the classroom (field trips, scavenger hunt, tour, community activity, workplace activity)
- Distribute note-taking guides to provide a structure for note-taking

### *Learning strategies for kinesthetic learners*

- Take notes during lectures and group discussions
- Transfer notes to cue cards or type up notes on the computer
- Go on “thinking walks”. Walk while you try to organize an assignment or try to study information for a test
- Book a discussion room, and write key points onto a chalkboard, easel board or other large writing surface



## Left-Brain Dominance

### *Ways to engage learners who are left-brain dominant*

- Give students “To Do” lists so they have a clear idea of everything they need to do
- Provide and follow step by step procedures initially when solving problems
- Show how learning connects to the real world or applies in practice. Use case studies.
- Provide examples of concepts and procedures
- Explain how new information connects to previous information
- Be very clear on details and expectations and be patient with “detail” questions – What are you looking for? When is it due? What are the most important pieces?

### *Learning strategies for left-brain learners*

- Have someone proofread your assignments for the big picture elements – coherence, meaning, completeness of ideas.
- Review the outline of a chapter to see all the various pieces and how they fit together
- Take time to identify connections between various pieces of learning (draw a mind-map, use symbols in textbook and notes)



## Right Brain Dominance

### *Ways to engage learners who are right-brain dominant*

- Provide students with a topic overview as well as an outline/agenda for the class
- Tell students at the end of a class what is coming next and how they can prepare
- Provide opportunities for brainstorming, discovery, and problem solving
- Ask learners to find connections between theories and real world applications
- Give students opportunities to demonstrate learning creatively (i.e. visuals, music, art)
- Create experiences that involve students emotionally in the topic
- Take time to explain the big picture expectations for assignments and be patient with big picture questions – Why does this matter? How does it relate?

### *Learning strategies for right-brain learners (see next page)*

*Learning strategies for right-brain learners (on next page)*

- Make To Do lists. Write things down so you will remember them.
- Use color-coding to sequence information related to learning and assignments (i.e. blue for step one of a project, green for step two)
- Have someone proofread your assignments for the structural elements (spelling, punctuation, grammar, organizational pattern)
- Skim textbook chapters before coming to class to get an overview of the topic.
- Check with your instructors to make sure you are on the right track with assignments

**More Information on Learning Styles**

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