

An Introduction to Pedagogy and Learning Styles

Valerie O'Loughlin
Grand Summarizer

What IS "Pedagogy"?

- Def: the art, science or profession of teaching
- Word origin: Greek word *paidagogos*
paid=child, *agogos*= leader (slave who took child to school)
- Also may be defined as the exploration of effective teaching and learning strategies

What is "Andragogy?"

- From the Greek, literally means "adult-leading" (as opposed to pedagogy, which is "child-leading")
- Def: the art, science, profession of teaching *adults*
- Knowles (1973) stated adults (as opposed to children) tend to be self-directed learners, have a vast knowledge base that can be tapped, rely on peers as resources, are motivated to learn in order to solve problems and apply what they've learned
- Some educational researchers will use the term "andragogy" when examining postsecondary school education

What are “learning styles”?

- One definition (Sarasin): “the preference or predisposition of an individual to perceive and process information in one particular way or a combination of ways”
- Research suggests that learning styles originate with a large genetic component – but they can change and develop throughout life

Why should *students* learn about their own learning style?

- Understanding one’s learning style is the first step in one’s own metacognition in learning how you learn
- Using study methods appropriate for one’s learning style will facilitate learning, rather than impede it

Why should *instructors* learn about learning styles?

- We tend to naturally teach in ways that are consistent with how we learn – yet we likely may not be reaching the entire audience!
- Students with different learning styles may process information differently
- Need to apply teaching strategies that “speak to” multiple learning styles, so all students have a chance to succeed

What are some of the learning style theories?

- Many theories/categories
- Each theory has its own set of proponents (and a different set of critics)
- There is no one "true" theory – use/work with the theory(ies) that make the most sense to you.
- But be familiar with the 'basics' of the major theories
- Here's a sampling:

Gardner's Theory of Multiple Intelligences

- Developed in 1983 by Howard Gardner, this theory states measuring intelligence merely by I.Q. tests is too limited
- Originally proposed 7 intelligences, which account for a broader range of potential (now there are 9)

Multiple Int. (continued)

- According to Gardner:
 - All human beings possess all nine intelligences in varying amounts.
 - Each person has a different intellectual composition.
 - We can improve education by addressing the multiple intelligences of our students.
 - These intelligences are located in different areas of the brain and can either work independently or together.
 - These intelligences may define the human species.

Multiple Intelligences

- Logical/mathematical ("number smart")
- Linguistic ("word and language smart")
- Musical (sensitivity to pitch, rhythm, tone)
- Spatial (think in 3D, perceive imagery, images – "visualizer")
- Bodily-Kinesthetic (ability to manipulate objects, fine-tune physical skills)
- Interpersonal ("people smart") interact w/others well – "socializer"
- Intrapersonal ("self smart") – good sense of self
- (Naturalist) ("nature smart" – ability to categorize plants, animals in nature)
- (Existential) (able to tackle questions like "what is the meaning of life")

What is *your* multiple intelligence makeup?

- Go to this website (where some of this information was pilfered) and do this interactive test
http://www.thirteen.org/edonline/concept2class/mi/w1_interactive1.html

Neil Fleming: VARK

- V: Visual (images, flow charts, map)
- A: Aural (oral lectures, listening)
- R: Read/Write (text info, reading)
- K: Kinesthetic (hands-on activities)
- Most instructors (and the "classic" methods of teaching) favor those with a strong read/write preference
- Individuals may have one strong preference, be bimodal (e.g., VR, AK) or be multimodal

Variation of a theme: VAK

- Visual
- Aural
- Kinesthetic
- In this scheme, the 'read/write' is grouped with visual (since for most learners, the texts are seen)
- Many individuals have adapted this set of learning styles

Kolb Learning Style theory

- 4 learning styles:
 - Diverging: perceive info concretely and process it reflectively
 - Use both interpersonal interaction and info gathering
 - Can view a situation from many divergent perspectives and brainstorm alternatives
 - Ask "why" questions, like working in groups
 - Often found in humanities, arts, service careers
 - Assimilating: perceive info abstractly and process it reflectively (analytical learners)
 - Can assimilate data into a meaningful unit
 - Ask "what if" questions (what if I change this)
 - Prefer readings, lectures, traditional classrooms
 - In math, basic science, educational research

Kolb Learning Style Theory

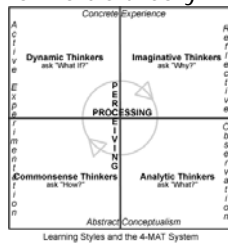
- Converging: perceive info abstractly and process it actively
 - Combine analytical thinking with doing
 - Ask "how" questions ("how does this work?")
 - Like lab work, simulations, instructor as a coach, prefer to work alone
 - In applied science, technology careers
- Accommodating: perceive info concretely and process it actively
 - Use both interpersonal interaction with doing
 - Ask "what if" (what happens if I change this?)
 - Like to learn hands on, but prefer to work in a group
 - Marketing, sales, business management, some teachers

Kolb learning style theory



But wait – there's more!

- Bernice McCarthy – 4MAT system – Variation of Kolb's theory



Take home points

- Lots of learning styles – be a bit familiar with some of the major ones
- Choose a theory that makes the most sense to you, apply it to both you and your students
- Examining relationship among learning style and student performance in class, teaching efficacy, etc can make for very good educational research projects (if designed well, of course!)