Looking and Learning:
Teaching with Visuals across the Curriculum

Deandra Little,
Associate Professor and
Assistant Director,
Teaching Resource Center
University of Virginia

Chad Berry
Academic Vice President and Dean
of the Faculty,
Goode Professor of Appalachian
Studies, Professor of History,
Berea College
The Pulse of Uncertainty

There is no question that volatility on Wall Street increased last year, and many analysts expect the recklessness to continue in 2008. But 2007 may have seemed especially tumultuous only because the years before it were remarkably calm.

There was only one day from 2004 to 2006 when the Dow Jones industrial average moved up or down by more than 2 percent. Last year, amid concerns about the subprime mortgage sector and credit markets in general, swings that large occurred 14 times.

Historically, though, 14 times is not exceptional: that total ranks about average over the last 10 years and slightly less than that over the last 20. The Standard & Poor's volatility index, or VIX, which measures expectations of future volatility based on the prices of options, also ended the year near its 10-year average.

Taken another way, if the Dow's daily changes — the dark lines in the chart — were stacked end to end, they would stretch about 110 percentage points from July to December of last year. That compares with nearly 200 percentage points in the second half of 2002, when the market was shaken by corporate scandals.

In 2007, some of the most volatile stocks in the S&P 500 were E*Trade Financial, Countrywide Financial and MBIA, a company that specializes in guaranteeing the financial health of others.

Among stocks that gained value, MEMC Electronic Materials, whose silicon wafers are used by semiconductor and solar cell producers, and Amazon.com had the most drastic swings.

"Internationally and domestically, there are things that are a little unsettling," said G. William Schwert, a finance professor at the University of Rochester. "But in the scope of things, it's not that unusual."

Mr. Schwert has studied why volatility changes over time. His answers include bank panics, wars and recessions.

AMANDA COX

Shanghai composite

Last February, an investing scare in China sent markets tumbling around the world. But it was only a temporary setback — one of several last year. Shares in Shanghai fell by at least 1.5 percent once a week, on average, but they still ended the year up nearly 100 percent.
“Young people learn more than half of what they know from visual information, but few schools have an explicit curriculum to show students how to think critically about visual data.”

Mary Alice White, Columbia Teacher’s College
Seeing is interpreting light

Seeing is active

Seeing is subjective
1) Seeing is interpreting light
2) Seeing is active
3) Seeing is subjective
"Whilst part of what we perceive comes through our senses from the object before us, another part (and it may be the larger part) always comes out of our own mind."

William James,
The Principles of Psychology (1890)
Vision

Visual Literacy

Visuality
Visual Literacy

- Visual Thinking
- Visual Learning
- Visual Communication
Mazur (Prentice Hall, 200?)
Mazur (Prentice Hall, 200?)
Serway and Jewett (Harcourt, 2002)
Good visualizations

Facilitate understanding

Account for brain processing

Appear in an engaging context
Visual Literacy

- Visual Thinking
- Visual Learning
- Visual Composing
After World War II, Berea College created a general studies course called "Man and the Humanities," in which students studied literature, music, and art. One of the first assignments asked students to draw their home community. Over the four-decade life of this course, some 7,000 drawings were saved. Because many of the students who came to Berea during these years were from Appalachia, these drawings are now primary sources that offer revealing glimpses of Appalachian life over the last half of the twentieth century. **Mappalachia** is an effort to make the drawings accessible to scholars, alumni, and the wider public. For more information, click here.
Visual Literacy

Vision

Visual Thinking

Visual Learning

Visuality

Visual Composing
References & Inspirations:


