

WEBER STATE UNIVERSITY

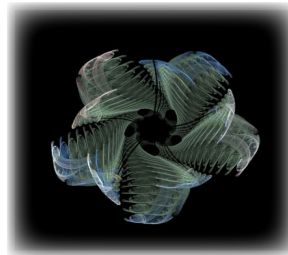
ASSESSMENT UPDATES

January 2009 Newsletter

The Chaos Theory of Assessment

In William Saroyan's delightful novel, *My Name is Aram*, he recounts an elementary school principal introducing his students to a visitor. The principal describes most of them as "future lawyers, accountants or captains of industry" but he has some difficulty characterizing Saroyan's young protagonist, Aram Garoghlanian, a young passionate Armenian who is clearly out of step with his fellow students. After struggling for a moment, the principal introduces Aram as, "One of our future poets, you might say."

Most of us who have landed in higher education as a profession probably can identify with "future poets" and often, despite the evidence entwined environments that we insist upon in much of our scientific and civic lives, still find the process of teaching and learning to be non-linear and "poetic" rather than simply sequential or prosaic.



Adapting the "linearly predicted" notion of assessment to this non-linear environment presents some significant challenges. It may make greater sense, if higher education is understood as a complex system of the type chronicled by James Gleick in *Chaos: Making a New Science*. In describing Chaos Theory, Gleick draws important distinctions between complex and complicated systems. A complicated system may have many interactions, but the interactions tend to be linear and predictable. A complex system also has many interactions, but the results of the interactions may not be linear, or easily predicted, but the system tends to create patterns that emerge at a macro level.

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"It may make greater sense, if higher education is understood as a complex system..."

If higher education is a complex system, assessment in higher education is best used to account for long-term patterns and to trace the effects of gradual changes. One of the implications of this approach is that highly precise measurements of a moment in time may not be causal predictors in higher education. Many educators and regulators who are involved in the assessment movement fail to understand that increasing the “digits past the decimal point” does not increase the accuracy of most higher education data and its inferential value. Instead, each measurement should be seen as an approximation that can help frame the broad picture over time.

Understanding what assessment can reasonably do, reminds us that assessment is not the “end” but a process. While assessment can help establish important trends, the joint purposes of assessment, accountability and improvement, have a secondary, rather than a primary relationship to the actual goal of learning. A “culture of assessment” may help us account to our funding sources, but it is not why we teach. Many educators may find the notion of assessing for “improvement” to be more palatable than assessing for accountability, but it is important to remember the improvement only has meaning in relationship to something else; it defines direction, not substance.

Successful assessment needs to be an integral part of the core mission of our academic enterprise. As Pat Belanoff, Director of Writing Programs at New York University at Stony Brook, observes, “Assessment works best when faculty can see that it does not invade their classrooms but grows out of them, when faculty can accept the goals of their own teaching and the goals of assessment as both compatible and mutually reinforcing, when faculty feel valued and valuable because the tests reflect their own input into the whole teaching, learning, and assessment process.”

In the process of higher education assessment there are many data points that could be collected, but it is sufficient to gather a few useful ones. As Benjamin Franklin noted, many things may be “true, but not very useful.” What we need to do is to identify those few data elements that will help us understand and improve the broad patterns that emerge over time in the process of teaching and learning.

*2008/09
Assessment
Season is
Here!*