This paper contends that the public education system in the United States has generally failed non-mainstream students because it is founded upon limited educational assumptions. The public education system relies upon linear/unit-dependent knowledge acquisition skills and rejects all data that cannot be recorded or verified as numeric quantities. Non-linear reflective perceptual skills, such as those rooted in traditional cultures and values, are not accepted as legitimate means of knowledge acquisition because the existing assumptions underlying the education system are race/culture/gender specific. The education system must be reformed to accept the different learning styles that result from gender, cultural, class, and racial differences. (DB)
Reflection and Knowledge: An Alternative View of Learning

by

Dr. Billie Nave Masters, Director
Advanced Education Research Center
Tustin, California
Reflection and Knowledge: an alternative view of learning.

by Dr. Billie Nave Masters, Director.

Advanced Education Research Center
Tustin, California

In a lifelong challenge as a parent and classroom teacher to develop and educate children, as well as youth and adults, one becomes unable to deny that the failure of many individuals to excel in public education does not lie totally within the recipients in this process. The fact that parents, family, and community play a significant role in pre-learning readiness and student motivation is an unquestioned truth, and an aspect of the educational process which is worthy of further study. However, the processes and informal methodologies employed by these groups have never been successfully examined or integrated into the formal educational system of the United States.

It is the purpose of this article to focus upon the historical approach to learning utilized by the public education system within the United States. With little exception, a single paradigm underlies all public education and has stood at the heart of planning, development, and implementation of instructional strategies throughout its history. This philosophic structure has continued to be employed despite the evidence that non-mainstream students have not succeeded to the same degree as members of the dominant, mainstream culture: the middle-class or upper-class student. This is an aspect of educational reality
which is evidenced by the fact that one in five adults in the country are functionally illiterate.

The observation and determination to educate the student who succeeds in all of life, except the classroom, has developed into a theory pertaining to the process of learning which can be utilized to develop instructional strategies which will increase the percentage of successful students.

There are two paradoxical difficulties inherent in attempting to introduce a new perspective concerning fundamental perception and learning, particularly the role of non-linear knowledge-acquisition ability and skills. The first is simply that you are presented with a certain amount of resistance rooted in the fact that most people, academics and non-academics alike, will have problems accepting a new approach to an area of knowledge with which everyone has considerable prior experience. To my mind, the problem conjures a picture of one person attempting to explain to another about the concept of "red" using a piece of blue cloth. There are certain universal similarities that can be drawn with respect to value and hue, but without some previously understood relation state to the topic of "red" it is going to be extremely difficult to think about the color in any other way than "somehow similar to blue". The second problem is the nature of academic discourse itself. For the sake of constructing a convincing argument about the inefficiency of linear/rational process as an instructional methodology, I am forced to use rational/linear constructions in order to present this information in a way that
is acceptable to the academic community, and provides a framework for future discussions that will encourage and engage dialogue among those seeking to increase literacy.

With these limitations in mind, I would like to begin by making the following statement:

What we have come to understand as the process of education is based upon a series of assumptions, of Western European origin, predicated in reliance upon linear/unit-dependent knowledge acquisition skills, rooted in a perceptual limitation developed and refined as a result of a mechanically-defined universe and rejection of all data, sensory or otherwise, which cannot be recorded or verified as numeric quantities. Further, these cognitive features are race/culture/gender specific, rendering the commonly accepted process of knowledge acquisition into an ethnocentric roadblock which precludes consideration of non-linear reflective perceptual skills, rooted in traditional cultures and values, and therefore limits the effectiveness of all attempted educational reform by basing all assumptions concerning instructional methodology upon inappropriate perceptual criteria. Essentially, gender, cultural, class, and language differences result in different perceptual styles which reflect themselves in different learning styles.

We can address the salient points of this hypothesis through examination of the following arguments:

1. The historical process of education is based upon a series of assumptions, of Western European origin, predicated in reliance
upon linear/unit-dependent knowledge acquisition skills.

To do an effective job of illustrating this point would require an encapsulation of the entire history of western civilization. Fortunately, it is also possible to examine this phenomenon in terms of one of its most enduring fruits: Scientific Method.

The methodology through which theoretical science grows provides an excellent example of the operation of linear knowledge acquisition. First, a theory must be formulated. This theory must "come from somewhere", meaning that it has to be rooted in some previously defined concept, or accepted scientific conclusion. The operative principle here is one of building blocks. A theory must be rooted on something which has been previously proven. To attempt to skip a generation in this process can be disastrous, as history has aptly demonstrated. New thinking, or a unique approach to perceiving a problem is treated as an irritant and not as a contribution. In scientific terms, no one would seriously credit a theory which stated that miracles were a constructive treatment for chronic alcoholism, although it is commonly accepted by millions of alcoholics that this is the case.

On the basis of the theory, tests are formulated and data gathered. This process has no value if strict protocols are not observed with respect to how the tests are determined, how the controls are set, and how the data is gathered and organized. In other words, if a researcher is not asking the right question,
tested in the proper way, and analyzed according to a particular perceptual frame of reference, then it is quite possible to amass vast amounts of new information gathered from new experiences but not learn anything with respect to their stated goals and objectives, because sequence was violated and results invalidated.

The antithesis of this approach would be whole-brain [global], top-down, contemplative, inclusive [drawing upon memory and experience to enhance input] learning which is the primary knowledge-acquisition model employed in the formulation of Reflective Learning Theory.

2. Historical knowledge-acquisition skills are rooted in a perceptual limitation developed and refined as a result of a mechanically-defined universe and rejection of all data, sensory and otherwise, which cannot be recorded and verified as numeric quantities.

Essentially, what is meant by this assertion is that at several points during the evolution of civilization, those human populations destined to control the main thrust of western culture made the movement from participation as earth-centered humans to the rationalization of a human-centered Earth. That movement required adjustments of perception with respect to the environment that can be defined by some key assumptions:

- The ability to make a tool is the inherent right to use it.

What is meant by this statement is that there is an automatic assumption that all tool making is good, and that all tool
applications are appropriate by virtue of the fact that the tool exists. This "inherent right" has been a major contributing factor in most wars, and all ecological disasters inflicted upon the planet for the last 10,000 years. But in order for this philosophy to work effectively at the cultural level, you have to perpetuate the social maxim that it is Mankind's natural right to dominate, not just other people, but the planet itself. The notion of a mechanical universe, one in which all activity can be reduced to numbers, or cause and effect relationships, adds to this effort by providing a reasoned framework for minimizing the concept of moral responsibility.

Applying this thinking to our previous example, a theory must be explicit, revealing, restrictive, and testable in a way which allow results to be compared. When applied to the development of instructional methodology, a theory must be explicit in that it addresses a clearly defined and isolated component of learning, revealing as it captures significant generalizations based upon previously accepted data, and restrictive with respect to the employment of systematic phenomenon. For all of its apparent simplicity, this protocol challenges what occurs in homes, communities, and classrooms all over the nation every day. As any classroom teacher can attest, children will learn on a given day exactly what they are individually suppose to learn, or are capable of learning, regardless of any imposed standard or process. Yet, recognition of this organic component with regard to fixed-learner outcomes is not commonly integrated into
curriculum design because of the difficulties inherent in quantification and standardized assessment and the ensuant absence of significance according to scientific standards.

-A statement must be proven to be true.

In this one thought, the entire realm of metaphysical, spiritual, esoteric, philosophical, and religious thought is eliminated from the human data bank. Additionally, this also limits the value of traditionally defined communication systems including stories, ceremonies, dreams, songs, dances, and symbology. By linking the concept of "Truth" with the idea of quantifiable, repeatable experience it has been possible to use logic as civilization's most potent tool of conquest. It has also served to define knowledge acquisition only in terms of those skills determined to be advantageous to rational/linear process. This in turn has led to the eventual inability to perceive the operations of the world in any other way.

3. These cognitive features are race/culture/gender specific.

It requires little investigation to realize who is most profoundly effected by the dependence upon a single rational/linear perceptual process. Tribal, Familial, or matriarchal cultures which were not conquered or absorbed during the evolution of the human-centered Earth paradigm are now forced to operate within this model or risk rejection by the intellectual mainstream. Through the twists and turns of cultural development, the principle priests in the Church of Reason were white, male, western Europeans operating in an atmosphere which
they both perpetuated and aggressively defended. One of the greatest historical blows to the European intellectual power structure was the invention of the printing press and the subsequent expansion of literate society beyond the chosen few. Yet, in many respects the war was already over by the time that access to information was granted to the general public, because the cognitive processes which governed how that information was organized were already locked into place, and were dedicated to the exclusion of perceptual platforms which did not conform to previously determined expectations.

4. The culturally accepted process of knowledge acquisition is an ethnocentric roadblock which precludes inclusion of non-linear reflective perceptual skills, rooted in traditional cultures and values, and therefore limits the effectiveness of all educational reform.

What the conclusion amounts to is this, we have lost something of extreme value in pursuit of the course we have chosen with respect to how we assess information. What has been lost is not a conscious step in this process, but a "pre-conscious" step. We have lost the ability to consider perceptual information in non-linear, reflective ways, and have subsequently cut off about 50% of our cognitive ability and the knowledge to be gained through its use. This aberration has had the additional effect of rendering useless any attempt at educational reform, since those reforms are always rooted in a perceptual process which inadvertently discriminates against minority cultures that still
utilize reflective skills as a viable form of learning and retention.

The issue at hand is not so much educational reform, as awareness reform. If we start to think about how people "see" and start to develop methodology which accurately reflects fundamental perceptual awareness, and additionally begin to train rational/linear thinkers in alternative processing models, then we serve, at the most basic level, the actual communicative, cultural, and educational needs of a pluralistic society.

At the time of colonization and social formation in New England, the essential elements of what was to become the United States educational system were borrowed from the British Isles. These principles have never been restructured to meet the needs of the United States.

The time has come for this country to develop an educational systems geared to the needs of a pluralistic society which values, supports, and guarantees free and equal education as defined by the U.S. Constitution. The responsibility for addressing this need lies with those individuals who are most qualified to need this need: the educators.