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Culture in Relationship to the Mind

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by Grayce P. Storey

INTRODUCTION

Man is very adaptable in societies when given time and knowledge. Human nature has innately instilled in man the drive to survive. Scientific data have informed us that even simple animals act on information carried in the genes. To an extent, we are led to believe that our thoughts, feelings and actions are inherited. Whereas on the other hand, social scientists look at culture from the holistic life style point of view. This life style has to do with the learned ways of acting, feeling and thinking. Culture enhances man's ability to do things that his muscles and senses alone can not do.

In order for cultural patterns in a society or societies to develop into its fullest potential, there must be an investment in education. Resources must be available to create both the diversity of the media and educate the environment so that it may produce happy, healthy citizens for a productive democracy.

The more we get to know how much we have in common, how much we are unlike and appreciate the diversity among mankind, then the true reality of cultural patterns will be more acceptable. It is with this thought in mind that I wish to bring out several factors in this unit, such as moral values, the family and school, the brain, memory and intellect, giftedness, and technology.

This unit maybe taught in grades six through twelve. This unit may also be incooperated in such classes as health, science, economics, history, civics and english.

MORAL VALUES

The moral and value system of a society provides strength for social control of that society. It also aids in the judgement of members in respect to behavior. Cultural rules in a society refers to what is desirable or undesirable and they must be vested with authority.

Moral values are concerned with the amount of zest and efficiency with which members of a social group participate in an activity. Each member of a group learns something about the beliefs and attitudes of other

members.

American psychologists have devised many procedures for measuring the level of moral values in many groups. Attitude scales and personal interviews may be employed to appraise the degree of conviction with which beliefs and attitudes are accepted or rejected.

It seems that discussion of moral values can reach a satisfactory level when each member of a group enjoys full self respect.

"Common moral values are the vital common beliefs that shape human relations in each culture." [1] The transition of moral values from one culture to another has played a major role in America's culture weather it has been formal or informal. Two reasons are: "human beings are adaptable animals and live in all climates and diverse cultural systems," [2] and without morals the human propensity for selfishness can destructively affect adult institutions.

Every individual operates according to a system of values whether it is verbalized or not. In selecting goals, in choosing modes of behavior, in resolving conflicts, he is influenced at every turn by his conception of what is good and desirable. Although everyone's value system is in some way unique, an individual's values are usually grounded in the core value of his culture.

Values, of course, are no the only determinant of behavior. Any given act reflects the individuals immediate motivational pattern and various situational factors such as, the means and goals available at the time, as well as his relatively permanent assumptions concerning values.

FAMILY AND SCHOOL

There has been a change in the family structure. The change is being reflected in the number of single-parent families, working women, decrease in family size the similarity of male and female roles, and communication patterns.

The values parents wish to give their children has to be identified. It is the parent's responsibility to model the values and monitor the child's practice of them. The parents need also to establish a bond between the school and home, as well as form a commitment with the community to support the child in the family.

Sacrifices must be made for the children on behalf of the family.

One of the greatest needs of children is that of an identity. The self worth of the child is stimulated when he is shown love, pleasure, and caring. When a child is asked for

his ideas and sees them put to use will indicate to that child that his values and thoughts are recognized. A must in developing self-image in a child is giving that child attention and the results can be meaningful.

There must be a familiarity between the parent and teacher because this will aid in revitalizing the home and school relationship. Therefore, the capabilities of the child will even more be realized. Most importantly, the child will be able to identify parents and teachers, home and school as places and people of learning.

Programs must be available to prepare teachers with the skill to work with nontraditional families and children.

It is necessary that the curriculum reflect the children's current and future needs. Skills in stress management, child care, family care, and life skills are a must. Schools should be urged to incorporate these areas into the curriculum. The family and community are not exempt, they too must take part in this endeavor.

The children today will stand in our places tomorrow so it behooves us to prepare them well by being totally committed to them.

In communities there is a congruency between education and the social and cultural aspects of a society. The family and community were responsible for education the young. The plantation South viewed education as a privilege of the elite. The children were educated in private schools or they were provided tutors.

Private academies were later replaced by public high schools. The division in urban schools was brought about due to the social class, religion, and ethnic backgrounds.

"Today schools serving the slums of the big cities are relatively unsuccessful in their educational efforts when judged by and compared with middle class standards." One problem of the inner city is the inability to keep older children in school. Some may interpret the reason for the high drop out rate as follows:

1. the inappropriateness of the school programs,
2. rejection by the intellectual marginal, and
3. those who leave school equate age with adulthood and see school as a place for children.

THE BRAIN

The central nervous system in man is made up of the brain and spinal cord. Information is collected through, the sense organs by way of the afferent nerves. These nerves also cause the muscles to contract. It is also through these nerves that information is received about the environment. The environment is external.

Date on the operation of many behavior patterns at the neurophysiological level is limited because of the lack of knowledge. However, there is an accumulation of knowledge about the brain that can give direction in the search for the biological basis for cultural behavior.

The medulla is basically used for survival, where as, the cerebrum is mostly involved in complex memory processing. The medulla is responsible for controlling breathing, swallowing, digestion, and heartbeat. It is also referred to as the switching center of the brain. It takes care of certain reflexes such as the enlargement of the pupils and the closing of the pupils due to bright light. The functions of mating and breeding are also centered in the medulla.

The cerebrum, thalamus, and hypothalamus or the limbic system regulates emotional behavior and controls metabolism and temperature. (see figure 1)

The cerebrum is also responsible for voluntary movement, thinking, personality, higher learning, consciousness, sense perception, and cultural behavior. The cortex is the center of all of the mentioned abilities. Man's culture-related behavior lies in his language and tool skills. The cerebrum is made up of two large hemispheres which are connected by the corpus callosum. This structure allows communication back and forth through structures called commissures.

The cerebellum controls body balance, muscle tone, and voluntary movement.

Most right-handed people demonstrate what is known as left cerebral dominance. The left cerebral hemisphere controls the right hand, also controls the language performance. When the left cerebral hemisphere is truly dominant the right hemisphere will control the left hand and will be unable for the most part to produce speech. It can, however, understand simple speech. (see figure II)

INTELLECT AND MEMORY

Intellect is derived from a Latin verb meaning "to gather and select the best fruit of a harvest." [4] An intellectual person originally was one who gathered thoughts, ideas, feelings, and intuitions. They also used their faculties to unmask effective ways one should live through out the world.

Children must become intellectuals as they develop communication skills so that they will be able to express their ideas and feelings to others and will in return understand people's feelings and ideas.

Children are a product of this world in which they had no part in its making. Also they should be given the time and opportunity to express themselves without being interrupted with outside ideas or conclusions.

The essence of intellectuality deals with the ability to formulate and express ideas with others, coupled with the ability to modify the ideas on the basis of experience and dialogue. The responsibility lies on the school to assist the children in their development of these skills. It is also the acquiring of these skills which helps the child in developing into an intelligent individual.

Children are confronted with many problems such as, being rich or poor, availability of jobs, and an equal chance of becoming president.

The young people are confronted with many complex and frustrating questions. They have no person, no place, motive to explain their ideas. Home is often a place to rest; the street, a place to play out restlessness.

"Schools should not be a place for the maintenance of stupidity. Stupidity has to do with thoughtlessness, with the blind acceptance of ideas . . . . most centrally with the loss of control over one's action and ideas." [5] Teachers have the responsibility to reverse stupidity to intellectuals.

Most teachers try to promote the students thinking capabilities and make this a top priority in their educational goal. The key variable in teaching for thinking are instructional material and the procedure for which the materials are used.

There are probably two types of memory, long-term and short-term. “Long-term memory occurs when structural changes occur in the brain. Short-term memory, on the other hand, may be dynamic and consist of either nerve impulses or slow patterns of electrical charges that wax and wane, or both.” [6]

Mark Rosenzweig, Edward Bennett, and Marian Cleeves went about demonstrating this using rats in four different environments. At the end of the experiment, they checked the rats for the difference in ratio of cortex to subcortex.

The experiment was carried out as follows: the standard lab environment consisted of a metal cage with three rats, the enriched was a large cage with twelve rats complete with play things, and the impoverished was a bare cage with one rat, the seminatural environment which showed the greatest ratio of cortex to subcortex is weight. This is evidence that experience directly affects the brain.

Neurons or nerve cells do not increase in number after the brain has reached maturity. If a portion of the brain is destroyed by toxin or injury it is permanent. The destroyed portion does not regenerate.

“Short-term memory may be related to images in the brain and theses images to consciousness.” [7] Penfield and Roberts suggest in Speech and Brain Mechanisms (1959) that anything which has entered the stream of consciousness is recorded in the brain.

A prerequisite for culture is adequate memory storage so that complex learning can occur.

Karl Pribram, an experimental neurophysiologist, “feels that two classes of communicative acts can be distinguished on the basis of whether the meaning of the act depends on the context in which it occurs.’ Context free communicative acts are labeled ‘signs’ and context dependent communicative acts are labeled ‘symbols’ (Pribram 1971: 305.) If we are to deal with the biological elements necessary for fully developed culture, we must look at the ability to symbol. To understand this ability we must understand the organization of the cerebral cortex and something about how it may have evolved.” [8]

GIFTEDNESS

The beginning of education of any kind for any particular type of learning may be viewed as morally based. What we choose to do and not to do in school is considered as a clue to what society deem important in a society. “All cultures have some consensus on what constitutes human ability even though particulars will vary. [9] Consequently, the criteria for selecting school giftedness participants could be seen as a moral endeavor on the basis of reflecting cultural preferences.

Schindler mentions in The Journal of Negro Education, that life chances of particular students will be altered whether they are chosen or not. There are several questions raised as to whether “the participants self-esteem is put under undue and unhealthy pressure, and does it benefit society generally to identify and educate the brightest and best in order to husband their future contributions.” [10]

Schindler views the value element as being obvious and strong. He draws a simile between being gifted and being beautiful and he concluded that both are admirable. Giftedness is a cultural concept of preferred human attributes that is accepted be citizens in the community, such as the educators, taxpayers, parents, and the

policy making body. Gifted can be defined “as a point of departure for generating identification criteria that may also receive widespread support “ [11]

From yet another spectrum, giftedness has to do with three basic clusters of human traits. These clusters are; “above-average general abilities, high level of task commitment, and high levels of creativity.” [12] The gifted are capable of developing these traits and applying them to any potentially valuable are of human preference. Students who are capable of developing an interaction among the three clusters require a wide variety of education and many services that are not provided through regular instructional programs.

TECHNOLOGY AND ART

Our future will be primarily that of scientifically based technology. A perfectly well balanced life certainly will include the arts.

The achievement of technology in a culture makes it possible for new images to be created by the artist, and new challenges originated as a result. Technology assists the artists in creating what they have imagined.

The development of new modes are brought about by thinking within a new medium. Therefore, the antiquated solutions are no longer relevant to the new problem encountered.

“The kind of mind we come to own is profoundly influenced by what we have an opportunity to learn and experience. The mind is a vast potentiality. The course of its development is shaped by its use. Use in turn, is shaped by the conditions of the culture in which one lives. Culture itself can be regarded as the condition of context affords an individual for the invention of mind. When one shapes the culture . . . one provides direction to the invention of mind.” [13]

Technology can be described as an abundance of tools that provides new thinking, and human intelligence. The bottom line is that educators must rely on the arts, science and technology to do their work.

The other side of the coin displays some dangers to technology. Technology creates new opportunities and develops the mind, it can also lead to a sense of mindlessness.

The television is a powerful piece of technology. We spend many hours out of our lives watching television on a daily basis. The television can lull us to sleep and distract us from the important things in life.

Our children have been caught up in the rushing streams of fantasy land. They are led to believe that there is an answer to every question and every problem can be solved through the image that they view.

Some contributions of technology and art are:

1. The automobile,
2. prepackaged frozen dinners,
3. the airplane,
4. television,
5. paint, and

6. microcomputers.

Because of the artists sensitivity to culture, they have aided mankind to see the world free from conventional blinders. It is because of this that our curiosity has been piqued, and our imagination stimulated to the point that the world around us can be seen better.

Through education, the potential of technology and the arts is encouraged to enhance rather than to enslave.

CONCLUSION

In organizing his universe into a meaningful pattern and developing a system of values, man can turn to three chief sources of understanding;

1. science, which can help man better to understand himself and the universe in which he lives,
2. experience, which relates both for the group and the individual, the consequences of various types of behavior in term of need, satisfaction, happiness, and fulfillment, and
3. belief, which gives subjective validity to religious and ethical concepts about the meaning and proper conduct of human life. No one of these sources seems sufficient in itself, nor in any of them infallible.

Science has the advantage of providing information that has been checked and rechecked by objective methods. But fact is impersonal and , except as it is interpreted, does not contribute to meaning or provide a guide for action. Even the value of searching for truth the basic premise of science cannot be proved scientifically. Probably the greatest scientist of our age, Albert Einstein, acknowledged that “the scientific method can teach us nothing else beyond how facts are related to, and conditioned by, each other” [14] (1950, pp. 21-22):

VOCABULARY

1. values—goals or standards held or accepted by an individual, class or group
2. culture—the ideas, customs, skills, and arts of a given people in a civilization
3. evolution—a gradual, progressive change, as in a social and economic structure
4. hemisphere—either lateral half of the cerebrum or cerebellum
5. cerebrum—the upper main part of the brain of vertebrate animals consisting of two hemispheres
6. cerebellum—the section of the brain behind and below the cerebrum and functions as the coordinating center for muscular movement
7. commissures—a band of fibers joining symmetrical parts, as of the right and left sides of the brain and spinal cord
8. neurophysiology—the physiology of the nervous system
9. environment—all the conditions, circumstances, and influences surrounding, and affecting the development of organisms
10. gifted—having a natural ability

LESSON PLANS

LESSON 1 Objective The students will recognize attitudes and beliefs that deal with the moral values of a group

Learning Activity Oral group discussion

1. define culture
2. define values
3. how does cultural backgrounds affect lifestyle
4. tell where your family or ancestors came from

5. tell what the people in the region do for a living
6. find out what language they speak
7. share how to speak common phrases in the language of your country
8. describe the type of clothing worn and kind of houses in your country
9. explain the type of recreation the people in your country enjoy

Homework:

1. draw a map showing the location of the country or region of your family or ancestors
2. explain the type of government
3. describe the major physical characteristics of the people who live in the area of your family or ancestors (size, skin color, color of hair)

LESSON 2 Objective The students will visit the Children's Museum and explore some of the clothing from other cultures

Learning Activity Field trip to the Children's Museum

LESSON 3 Objective The students will discuss why identity is important

Learning Activity Role playing

Discussion beliefs and attitudes Brain storming ideas Act out in small groups the students will act out what goes on in the single parent family, working women family and a family where both parents are present

1. the students in small groups will assume the role of the parents and children
2. the students will give a group report of what went on in the family in one typical day

Homework On Monday bring in a sample of food(s) from your country we previously discussed. Be prepared to share recipes and tell where the food is grown.

LESSON 4 Objective The students will list the parts of the brain

Learning Activity Drawings, discussion, film, quiz

1. the make up of the central nervous system
2. the parts of the brain
3. what takes place in the parts of the brain
4. the hemispheres of the brain
    a. the right side
    b. the left side
5. film: The Brain
6. quiz: the three parts of the brain

LESSON 5 Objective The students will discuss the two types of memory

Learning Activity Lecture
Commence experiment seed scarification

1. long-term memory
2. short-term memory
3. intellectual
    a. formulate ideas
    b. express ideas
4. concern of teachers
5. establish groups for experiment
6. assigning of material for experiment to groups

LESSON 6 Objective The students will see what happens to seeds when they are exposed to different environments

Learning Activity Materials
beakers, petri dishes, thermometer, seeds, file, paper towels, hot plate, old stockings, Clorox solution, test tube holder.

Procedure Prepared petri dish: soak paper towel in a 1 to 12 part clorox solution (one part clorox and twelve parts water) and cover well the bottom of a petri dish.
Each group will receive 100 seeds and separate them into piles of twenty.

With a file scar twenty seeds and place them in a prepared petri dish and cover it.

LESSON PLANS

Take a pile of seeds and put them into an old stocking and hold it in a beaker of boiling water for two minutes. Then place them in a prepared petri dish with cover. Let a pile of seeds soak in room temperature water for 5 minutes and place them in a prepared petri dish with cover. Put a pile of seeds into a beaker and pour scalding water over them and let them set for 2 minutes, take them out and place them in a prepared petri dish with cover. Put a pile of seeds in cold water 100 degrees and let them set for 5 minutes then take them out and place them in a prepared petri dish with cover.

*Observe and record findings daily.

LESSON 7 Objective The students will share samples of food(s) from their culture or their ancestors culture

Learning Activity Oral individual presentations

1. share recipes
2. tell where and how the food(s) is (are) grown

LESSON 9 Objective The students will define giftedness

Learning Activity Oral discussion, lecture

1. define giftedness
2. three basic clusters of human traits
3. cultural preferences

LESSON 9 Objective The students will correlate technology and culture

Learning Activity Oral discussion, lecture

1. technology and art
2. technology and tools
3. dangers of technology
4. technological contributions
5. group work to prepare for report on seed scarification

LESSON 10 Objective Summative test: Essay
Choose any three out of the four questions.

1. List and explain what takes place in the parts of the brain.
2. Define culture and environment.
3. Can intelligence be related to environment? If so explain.
4. Explain the two types of memory.

Notes

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1. Education Digest Vol. 5 No. 8 April 1986 p. 27.
2. Ibid p. 27.
3. Culture The Education Process p. 28.
4. Education Digest Vol 50. No. 7 March 1985 p. 29.
5. Ibid p. 29.
6. Culture and Biology p. 21.
7. Ibid p. 22.
8. Ibid p. 22.
9. Education Digest Vol 50 No. 4 December 1984 p. 46.
10. Ibid p. 36.

11. Ibid p. 47.
12. Ibid p. 47.
13. Education Digest Vol 49 No. 1 September 1983 p. 12.
14. Personality Dynamics and Effective Behavior p. 438.

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3. The Education Digest. “On Families and the Re-Valuing of Children;” Vol. 49 No. 5 January 1984, Prakken Publications, INC., 416 Longshore Drive, Ann Arbor, Michigan.

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6. Kimball, Solom T., “Culture and The Educative Process;” Teacher College Pres, Teachers College, Columbia University, New York, New York 1974.

7. Tannell, Gary G., “Culture and Biology;” Burgess Publishing Company, Minneapolis, Minnesota, 1973.

Figure I
(figure available in print form)
Figure II
(figure available in print form)

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