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ABSTRACT

Schools have been paying too much attention to intellect alone, ignoring the total development of the student as a whole. Bloom's Taxonomy of Educational Objectives in the cognitive domain categorizes knowledge into knowledge of specifics, knowledge of ways and means of dealing with specifics, and knowledge of the universals and abstractions in a field. Intellectual ability and skills are categorized into comprehension, application, analysis, synthesis, and evaluation. A second taxonomy of educational objectives, by Krathwohl, Bloom, and Masia, relates to the affective domain and leads to an understanding of the whole learning self. It deals with interests, attitudes, values, appreciation, and adjustment. These are characterized as receiving, responding, valuing, organizing, and characterizing by a value or value complex. These educational objectives involve a greater inclusiveness and are related to both the cognitive and affective domain. It is time to create programs and educational settings which will help meet these objectives. We are beginning to see students as whole persons with a broad spectrum of needs, and we need to have more respect for their potentials. We want them to be independent learning persons who are intellectually competent, articulately communicative, emotionally free, idea seeking, idea creating, and honest in their relationships. References are included. (AW)

THE RELATIONSHIP OF AFFECTIVE CHANGES TO COGNITIVE SKILLS DEVELOPMENT

Luanne P. King

The purpose of this paper is to stimulate greater interest in the affective domain of educational objectives on the part of learning skills specialists who may still think of their work primarily as a mission to develop cognitive functions. Implied by this purpose is the conviction that teachers who are working to develop the academic skills of students should begin to think of themselves as facilitating counselors who can bring about significant affective changes in their students' attitudes toward learning and being. Also implicit in the thinking of this paper is an invitation to teachers to embark on a course of developing more authentically human relationships with students which would be a source of mutual fulfillment and personal growth. Without mutually satisfying relationships between teachers and students, not very much lasting learning can occur. It is important to consider the needs of the whole person, the total self of the student. It is also important for teachers to examine their own needs; these must also be met in the classroom process for a teacher to feel and be effective. Inherent in this point of view is the premise that in helping students, one is also

experiencing personal growth and helping oneself. Students' reactions and explorations are a bounteous source for the teacher's own self-actualization and should be viewed with respect.

By now it is possible that some readers have already turned to another article, perhaps muttering, "What am I supposed to do, turn all my classes into sensitivity groups?" But it could be argued that the whole art of teaching is sensitivity training of one kind or another: helping students to get in touch with their own thoughts and feelings; enabling children and young adults to react to others' ideas and experiences; facilitating discovery and organization of values; encouraging young people to seek knowledge that is relevant to living fully; and developing their ability to express their discoveries in coherent ways so that others will understand what they intend to communicate. Greater human sensitivity in all of learning, living, and relating to others is the new threshold in education. It is important to accept this and examine our teaching and counseling approaches with concern and a commitment to change; for change is needed. In fact, change will evermore become a way of life, and we must help our students prepare for this in the learning experiences they have with us now. That is why we need to say that the purpose of education should be to free the student for his self-education, a self-education which will have to continue all of his life.

George Brown (2) notes that our schools have failed miserably in developing intellects precisely because they have paid too much attention to the intellect alone, largely ignoring the development of other human qualities that give learning its meaning. Decosmo (5, p. 1) says, "We 'professionals' have succeeded rather well in 'carving up' the student so that we can all have a piece of him. Through an ententé, the instructional and student personnel staffs have split him into his cognitive and

non-cognitive halves. Teachers have laid claim to his cognitive self and proceed to try and 'teach' him new skills and intellectual competencies. The student personnel staff has purported to help him in his search for identity and intimacy or whatever psychosocial crisis faces him at his particular life stage. This, in itself, would be serious enough, but we have taken it a step further. Each group views what it does as the most important contribution and forgets that we ought to be working together to integrate both aspects in order to assist the student in his total development. Further, we view the 'other side' as competition for the student and forget that we can support each other's efforts on behalf of the student."

It is time to ask that schools be responsible for a more extensive and subtle education of the entire person: mind plus emotions, body awareness (8), and even spirit. Most philosophers of the future agree that the man of 2000 A.D., or even sooner, will need to be a more fully sensate man as well as an intellectual man. He will have to be this complete man in order to cope with his ever changing culture; and beyond just coping, he will have a deep need to relate authentically to other persons in his culture and to make contributions to them. This concept, now admittedly controversial among educators who are not future-oriented, has many implications for counseling center models and teaching: a new kind of teaching which does not dispense knowledge, but rather facilitates personal discovery and learning.

Jerome Bruner (3) believes that it is the process of problem-solving and discovery in learning that will bring about increased motivation for the subject and all of the appropriate interests and attitudes. He thinks that it is not so much what is learned, but how it is learned which will determine the affective objectives that will be attained at the same time

as cognitive objectives. Teachers sometimes sigh at this and say, "That sounds wonderful, but I don't have time to let all my students reinvent the wheel." This is missing the point and perhaps ignoring the value of what Maslow (9) calls the "peak experience." He has suggested that peak experience may have a powerful influence in major changes in the individual. Maslow's hypothesis is that a single powerful experience may have much more impact on the individual than many less powerful experiences. Bloom (6) states there is evidence that a single hour of classroom activity under certain conditions may bring about a major reorganization in cognitive as well as affective behaviors. And therein lies the challenge to all of us: how can we bring about peak experiences of discovery and insight?

It is time to examine more specifically what we mean, in terms of educational objectives, by the cognitive and affective domains. The most comprehensive efforts to clarify these domains are a taxonomy of educational objectives in the cognitive domain edited by Bloom (1) and a taxonomy classifying educational goals in the affective domain by Krathwell, Bloom and Masia (6). The work related to the cognitive domain investigates and defines knowledge as well as intellectual abilities and skills.

Knowledge is defined as the recall of specifics and universals, the recall of methods and processes, or the recall of a pattern, structure, or setting. The taxonomy of educational objectives related to knowledge emphasizes mostly the psychological process of remembering, although the process of relating facts in order to organize and reorganize a problem so that it may be solved is also considered. The broad term, knowledge, is broken down into subcategories.

Knowledge

1. Knowledge of Specifics: isolable bits of information at a low level of abstraction.
   a. knowledge of terminology: referents for specific symbols, verbal and nonverbal;
   b. knowledge of specific facts: dates, events, persons, places, etc.
2. Knowledge of Ways and Means of Dealing with Specifics: how to organize, study, judge and criticize.
   a. knowledge of conventions: characteristic ways of treating and presenting ideas and phenomena; e.g., verse, plays, scientific papers, correct form and usage in speech and writing, etc.;
   b. knowledge of trends and sequences: processes, directions, and movements of phenomena with respect to time;
   c. knowledge of classifications and categories: classes, sets, divisions, and arrangements fundamental to a given subject field, purpose, argument or problem;
   d. knowledge of criteria: how facts, principles, opinions, and conduct are tested or judged;
   e. knowledge of methodology: methods of inquiry, techniques, and procedures employed in a particular subject field as well as those employed in investigating particular problems and phenomena.
3. Knowledge of the Universals and Abstractions in a Field: the major schemes and patterns by which phenomena and ideas are organized.
   a. knowledge of principles and generalizations: particular abstractions which summarize observations of phenomena;
   b. knowledge of theories and structures: the body or principles and generalizations together with their interrelations which

present a clear, rounded, and systematic view of a complex phenomenon, problem or field; e.g., a relatively complete formulation of the theory of evolution.

The second main area of cognitive domain is intellectual abilities and skills which refer to organized modes of operation and generalized techniques for dealing with materials and problems. The abilities and skills objectives emphasize the mental processes of organizing and reorganizing material to achieve a particular purpose. The materials may be given or remembered.

Intellectual Ability and Skills

1. Comprehension: the lowest level of understanding whereby an individual knows what is being communicated and can make use of the material or ideas without necessarily relating it to other material or seeing its full implications.
   a. translation: comprehension as evidenced by the care and accuracy with which a communication is paraphrased or rendered from one language or form of communication to another; e.g., the ability to understand non-literal statements (metaphor, symbolism, irony, exaggeration); also, the skill in translating mathematical verbal material into symbolic statements and vice-versa;
   b. interpretation: the explanation or summarization of a communication involving a reordering, rearrangement, or new view of the material;
   c. extrapolation: the extension of trends or tendencies beyond the given data to determine implications, consequences, corollaries, effect, etc., which are in accordance with the conditions described in the original communication.

2. Application: the use of abstractions in particular and concrete situations; e.g., application to the phenomena discussed in one paper of the scientific terms or concepts used in other papers.

3. Analysis: the breakdown of a communication into its constituent elements or parts so that the relative hierarchy of ideas is made clear and/or the relations between the ideas expressed are made explicit.

   a. analysis of elements: identification of the elements included in a communication; e.g., the ability to recognize unstated assumptions, and skill in distinguishing facts from hypotheses;

   b. analysis of relationships: the connections and interactions between the elements and parts of a communication; e.g., the ability to check the consistency of hypotheses with given information and assumptions;

   c. analysis of organizational principles: the organization, systematic arrangement, and structure which hold the communication together; this includes the "explicit" as well as the "implicit" structure; e.g., the ability to recognize form and pattern in literary or artistic works as a means of understanding their meaning; also the ability to recognize the general techniques used in persuasive materials such as advertising and propaganda.

4. Synthesis: the putting together of elements and parts so as to form a whole; and arranging and combining them in such a way as to constitute a pattern or structure not clearly there before.

   a. production of a unique communication: the development of a communication in which the writer or speaker attempts to convey ideas, feelings and/or experiences to others.

b. production of a plan, or proposed set of operations: the development of a plan of work or the proposal of a plan of operations; e.g., the ability to propose ways of testing hypotheses;

c. derivation of a set of abstract relations: the development of a set of abstract relations either to classify or explain particular data or formulas, or the deduction of propositions and relations from a set of basic propositions or symbolic representations; e.g., the ability to make mathematic discoveries and generalizations.

5. Evaluation: judgments about the value of material and methods for given purposes. Use of a standard of appraisal. The critieria may be those determined by the student or those which are given to him.

a. judgments in terms of internal evidence: evaluation of the accuracy of a communication from such evidence as logical accuracy, consistency, and other internal critera; e.g., the ability to indicate logical fallacies in arguments;

b. judgments in terms of external criteria: evaluation of material with reference to selected or remembered criteria; e.g., the comparison of major theories, generalizations and facts about particular cultures. Also, judging by external standards, the ability to compare a work with the highest known standards in its field--especially with other works of recognized excellence.

The second taxonomy of educational objectives relates to the affective domain and leads us more fully into an understanding of the whole learning

self. In general, the objectives in the affective domain deal with interests, attitudes, values, appreciation and adjustment. Specifically, they are characterized as follows:

1. Receiving (Attending): the level at which the learner is sensitized to the existence of certain phenomena and stimuli; that is, he is willing to receive or attend to them. The category of Receiving has been divided into three sub-categories which represent a continuum: from an extremely passive position or role on the part of the learner to a point at which the learner directs his attention, at least at a semi-conscious level, toward the preferred stimuli.
   a. awareness: almost a cognitive behavior. But unlike knowledge, we are not so much concerned with memory as we are that the learner will be merely conscious of something, taking into account a situation, phenomenon, object, or stage of affairs. There is no assessment of the qualities or nature of the stimulus. There can be simple awareness without specific discrimination or recognition of the objective characteristics of the object. The individual may not be able to verbalize the aspects of the stimulus which cause the awareness; e.g., being aware of aesthetic factors in dress, furnishings, architecture, city design, good art, etc.
   b. willingness to receive: being willing to tolerate a given stimulus and not avoid it, involving a neutrality or suspended judgment toward the stimulus; e.g., attending carefully when others speak; also, appreciating (tolerating) cultural patterns exhibited by individuals from other groups.
   c. controlled or selected attention: a higher level involving differentiation of a given stimulus into figure and ground at

a conscious or perhaps a semi-conscious level--the differentiation of aspects of a stimulus which is perceived as clearly marked off from adjacent impressions. The perception is still without tension or assessment, and the student may not know the technical terms or symbols with which to describe it correctly or precisely to others. There is an element of the learner's controlling the attention here, so that the favored stimulus is selected and attended to despite competing and distracting stimuli. An example would be listening to music with some discrimination as to its mood and meaning and with some recognition of the contributions of various musical elements and instruments to the total effect.

2. Responding: the level at which we are concerned with responses which go beyond merely attending to the phenomenon. The student is sufficiently motivated that he is not just willing to attend, but he is actively attending. As a first stage in a "learning by doing" (or experiencing) process the student is committing himself in a small measure to the phenomena involved; he is doing something with or about the phenomenon besides merely perceiving it. This is the category that many teachers will find best describes their "interest" objectives. They want a student to become sufficiently involved in a subject, phenomenon, or activity that he will seek it out and gain satisfaction from working with it or engaging in it.

   a. acquiescence in responding: "obedience" or "compliance" would also describe this behavior. At this lowest level of responding, there is a passiveness so far as the initiation of the behavior is concerned, and the stimulus calling for responding behavior is not subtle. Compliance is perhaps a better term than obedience,

since there is more of the element of reaction to a suggestion and less of the implication of resistance or yielding unwillingly. The student makes the response, but he has not fully accepted the necessity for doing so; e.g., willingness to comply with health regulations; or obeying the school's rules.

b. willingness to respond: implying the capacity for voluntary activity. The element of resistance or of yielding unwillingly is here replaced with consent or proceeding from one's own choice; e.g., acquainting one's self with significant current issues in international, political, social, and economic affairs through voluntary reading and discussion.

c. satisfaction in response: the additional element in the step beyond the willingness to respond level; the consent, the assent to responding, or the voluntary response, is that the behavior is accompanied by a feeling of satisfaction, an emotional response, generally of pleasure, zest, or enjoyment. The emotional component appears gradually through the range of internalization categories. Two examples would be: enjoyment of self-expression in music and in arts and crafts as another means of personal enrichment; and finding pleasure in reading for recreation.

3. Valuing: a term employed in its usual sense: that a thing, phenomenon, or behavior has worth. This abstract concept of worth is in part a result of the individual's own valuing or assessment, but it is much more a social product that has been slowly internalized or accepted and has come to be used by the student as his own criterion of worth. Behavior at this level is sufficiently consistent and stable to have taken on the characteristics of a belief or an attitude;

therefore, this category will be found appropriate for many objectives that use the terms "attitude," belief," as well as, of course, "value."

a. acceptance of a value: the ascribing of worth to a phenomenon, behavior, object, etc. At this lowest level or valuing, we are concerned with the lowest levels of certainty; that is, there is much more of a readiness to re-evaluate one's position than at the higher levels.

b. preference for a value: a level of behavior that implies not just the acceptance of a value to the point of being willing to be identified with it, but also being sufficiently committed to the value to pursue it, to seek it out, to want it; e.g., assuming responsibility for drawing reticent members of a group into conversation.

c. commitment: a level of belief involving a high degree of certainty. The ideas of "conviction" and "certainty beyond a shadow of a doubt" help to convey further the level of behavior intended; e.g., devotion to those ideas and ideals which are the foundations of democracy. Also, faith in the power of reason and in methods of experiment and discussion.

4. Organization: the necessity for organizing values into a system, determining interrelationships among them, and establishing the dominant and pervasive ones. This is important because as the learner successively internalizes values, he encounter situations for which more than one value is relevant.

a. conceptualization of a value: abstract conceptualization and, in this sense, symbolic. The symbols need not be verbal symbols. Whether conceptualization first appears at this point on the

affective continuum is a moot point; e.g., attempting to identify the characteristics of an art object admired. Also, forming judgments as to the responsibility of society for conserving human and material resources.

b. organization of a value system: objectives which require the learner to bring together a complex of values, possibly disparate values, and to bring these into an ordered relationship with one another. Ideally, the ordered relationship will be one which is harmonious and internally consistent. This is, of course, the goal of such objectives, which seek to have the student formulate a philosophy of life. In actuality, the integration may be something less than entirely harmonious. More likely, the relationship is better described as a kind of dynamic equilibrium which is, in part, dependent upon those portions of the environment which are salient at any point in time. In many instances the organization of values may result in their synthesis into a new value complex of a higher order. An example would be: weighing alternative social policies and practices against the standards of the public welfare rather than the advantage of specialized and narrow interest groups.

5. Characterization by a Value or Value Complex: the level of internalization at which the values have already a place in the individual's value hierarchy, are organized into some kind of internally consistent system, have controlled the behavior of the individual for a sufficient time that he has adapted to behaving this way; and an evocation of the behavior no longer arouses emotion or effect except when the individual is threatened or challenged.

The individual acts consistently in accordance with the values he has internalized at this level, and it is important to indicate two things: (a) the generalization of this control to so much of the individual's behavior that he is described and characterized as a person by these pervasive controlling tendencies, and (b) the integration of these beliefs, ideas, and attitudes into a total philosophy or world view.

a. generalized set: that which gives an internal consistency to the system of attitudes and values at any particular moment. It is selective responding at a very high level. It is a persistent and consistent response to a family of related situations or objects. It may often be an unconscious set which guides action without conscious forethought. The generalized set may be thought of as closely related to the idea of an attitude cluster, where the commonality is based on behavioral characteristics rather than the subject or object of the attitude. A generalized set is a basic orientation which enables the individual to reduce and order the complex world about him and to act consistently and effectively in it. Examples are: readiness to revise judgments and to change behavior in the light of evidence; and judging problems and issues in terms of situations, issues, purposes, and consequences involved rather than in terms of fixed, dogmatic precepts or emotionally wishful thinking.

b. characterization: the peak of the internalization process which includes those objectives which are broadest with respect both to the phenomena covered and to the range of behavior which they comprise. Here are found those objectives which concern one's

view of the universe, one's philosophy of life, one's Weltanschauung--a value system having as its object the whole of what is known or knowable.

Objectives here are more than generalized sets in the sense that they involve a greater inclusiveness and, within the group of attitudes, behaviors, beliefs, or ideas, an emphasis on internal consistency. These objectives are so encompassing that they tend to characterize the individual almost completely. Some outcomes in terms of a student's growth would be: development of a code of civic behavior based on ethical principles consistent with democratic ideals; and the development of a consistent philosophy of life.

Now that we have an overview of how educational objectives can be related to both the cognitive and affective domains, it is for each of us to create programs and educational settings which will help meet these objectives. It is clear that affective states of receiving, responding, valuing and internalizing organized values are vital prerequisites to cognitive functions. It should be remembered, however, that while we can define educational objectives into these two domains (albeit with some overlapping), human behavior in general can rarely be neatly compartmentalized in terms of cognition and affect, as Bloom (6) himself points out. Still, we can further develop our understanding of students, particularly college students, by identifying some of their highly contemporary needs. Many of these needs are related to new kinds of affective changes which often supersede and transcend those related to educational objectives in our classrooms. They are powerfully influential, and we must understand them well if we are to relate authentically

to our students and be effective in our roles as facilitators of learning.

Karem Monsour (10, pp. 2-4), a well-known psychiatrist, writes about the experience of young adults in this way:

> Living together in a grim, polarized, and even joyless world induces temporary despair which at times overtakes those of us who are older and who have in one way or another 'made some kind of peace' with our past and our present lives. Such temporary despair, however, may be a more permanent despair to the young who are unable to resolve the discrepancies between their vision of a humanistic life with their perception of the political, social and ecological disarray around them. It is the need to infuse their lives with authentic meaning which informs their search for ways of growth and self-realization. The variety of divergent life styles, from asceticism to communal living, which characterizes this search represents an attempt by the young to communicate their vision of society and the world as depersonalized, mechanized, and dangerous to survival of living forms.

As Dr. Monsour further explains,

> Many normal college students in our time are trying to devise and seek new ways of learning and becoming. They resort to political action and peace demonstrations, social action and protest, drugs and meditation, encounter groups and body awareness, volunteer service in ghetto schools and mental hospitals, petitions for ecological and environmental renewal, astrology and telepathy, committees for educational alternatives, 'new' schools, 'experimental' colleges, music and poetry, anti-war programs and draft resistance, communal living styles, civil rights activism, etc. The many forms of student activity leave one uncertain of their eventual impact on the personal, educational, social, and political problems toward which they are directed.
>
> One central issue, however, seems clear enough: effective and constructive action of any sort is contingent upon (emergence of) a sense of personal worth and meaning, a sense of positive identity, a self- concept which includes a sense of belonging and relationship to the social order and with other fellow men.

These excellent paragraphs characterize well the deep concerns of many of our students. Chickering (4) has summarized also the pressing needs of college age youth. He mentions some of the key developmental challenges faced by young people. They are: achieving competence (intellectually, interpersonally, and socially); learning to manage

emotions; and becoming autonomous or emotionally independent beginning with disengagement from parents. Regarding the latter point, Chickering notes, however, that students eventually realize that parents cannot be completely dispensed with except at the price of continuing pain for all. Some ancillary needs of young people related to this insight are: learning that they cannot be supported indefinitely without working; recognizing that they cannot expect to receive the benefits of a social structure without contributing to it; and realizing that loving and being loved are necessarily complementary. Chickering points out that when interdependence is recognized and accepted, the boundaries of personal choice become more clear. He then goes on to describe the young adult's need to establish identity, using Erikson's concept of identity as the confidence that one's ability to maintain inner sameness and continuity is reinforced by the sameness of one's meaning for others. Three last developmental needs described by Chickering are: achieving free interpersonal relations, clarifying personal purposes and goals, and developing integrity.

Conclusion

Hopefully, we are now beginning to see students as whole persons with a broad spectrum of needs, many of which we can help to meet. Moreover, we now need to have more respect for the potential of students. We need a new concept of human potential in order to realize the great gap between what our students do and what they could not only do but be. We are limited in our view of potential creativity, for example, by our past ideas of what is "normal" for students. We are over-influenced by data on their past performances, intimidated by their cumulative record files, and not interested enough in their potential. Kubie (7, p.6) states,

"Man's actual creative productivity, as compared to his potential creativity, is pitifully reduced by the ubiquitous, masked, neurotic ingredients of what is euphemistically called 'normal' human nature." It is vital to let students know that the barriers and inhibitions of the past need not exist in the present or future. The fact that counselors and teachers have faith in students' potential, their human potential as whole persons, must be felt by the students. Many studies have confirmed that the expectations of teachers greatly influence the learning of their students.

By now I hope it is clear that we can no longer afford to fragment the learning and personalities of our students. We want them to be independent learning persons: intellectually competent, articulately communicative, emotionally free, idea seeking, idea creating, and honest in their relationships. We want them to have sound and well organized values. We want them to be able to say, "I think, therefore I am." But we also want them to sense, " I feel, therefore I am." If we are truly interested in facilitating learning, much depends on our own willingness to live self-disclosingly, to develop truly human relationships with our students, and to be open to discovery ouselves. In a recent speech, John Vasconcellos (il) summed it up very well. He said that if we truly want to understand and help the person of tomorrow, we must become persons of tomorrow.

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