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ABSTRACT
        Developed as part of a project designed to provide a
synthesis of the literature and practice relating to the career
education of disadvantaged students, this review is intended to
inform teachers about research and techniques for motivating
disadvantaged students. Section I discusses the nature of motivation
and describes the basic human needs that motivate individuals,
including psychological needs, love needs, safety needs, esteem
needs, self-actualization needs, and the desire to know and
understand. Section II offers an overview of research relating to
such basic motivation constructs as self concept, locus of control of
reinforcement, aspirations, and self-actualization. Motivating
techniques such as the use of rewards and successes, feedback and
reinforcement, setting goals, and creative thinking are explored and
evaluated in Section III. Some conclusions drawn from this review
were: (1) A major portion of the motivation research is directed
toward ascertaining the global self-concept of the disadvantaged
student; (2) Changing the locus of control of reinforcement from
external to internal appears to be a primary objective of career
educators; and (3) The development of sub-goals to achieve a
long-range aspiration is more effective than are long-range goals.
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MOTIVATING DISADVANTAGED STUDENTS
TO LEARN

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PREFACE

Legislation and societal concern have given new focus and special emphasis to the needs of disadvantaged youth. Schools must strive to more effectively meet the needs of all students. Motivation is a key factor in the learning process and is especially significant for disadvantaged students with low educational and occupational aspirations. Educators must exert extra effort to utilize resources at their disposal to motivate and encourage their students. Disadvantaged youth are known to have positive self-concepts, as do other students, even though the negative may be more visible in the classroom. Educators should find the research and theory reported herein useful for practical application.

CONTENTS

I. INTRODUCTION

Students in a classroom or laboratory are generally motivated to do something, whether it be the teacher-planned activity, a student-planned activity, or the choice of doing nothing. Student originated activities may vary from educational, such as the research of a specific topic of their own choosing, to daydreaming or such antisocial activities as pinching, throwing paperwads or talking excessively. Getting students motivated is not the problem: Rather, it is motivating them to learn in some constructive manner. Activities may be planned or student-originated but are educational as well as prosocial.

A student who is not motivated to learn, or fails to learn at a normal rate, soon falls behind in his educational development. His impediment could be a learning disability, a cultural difference, or some psychological or emotional problem. When a student feels unsuccessful and unrewarded in educational endeavors, he may concentrate his attention toward success in non-educational activities. Students who fail to make normal progress in school over an extended period of time often find themselves at a disadvantage, educationally and often socially. Students who do poorly in school often do not get the recognition from the teacher they desire, and may either turn to their peers for recognition or withdraw from the classroom interaction completely. Students withdrawn from classroom learning activities or behind in educational development due to cultural or psychological impediments have been defined as "disadvantaged."

For the purposes of this paper all disadvantagements will be considered
in terms of their educational significance and will thus be designated
as educational disadvantagement.

Havinghurst (1969) suggests that poor school achievement is primarily
a problem of the lowest socioeconomic group, and is confounded to some
degree by minority subcultures. However, he points out that certain ethnic
minorities do as well if not better than the national average in school
achievement. No ethnic group per se can be said to be educationally or
socially disadvantaged, although persons from the lowest socioeconomic
class and belonging to a minority group may be considered disadvantaged.

Any technique to reduce this disadvantagement must include procedures
to turn the student's motivation toward educational activities. Sustained
learning is brought about by making the student feel rewarded and successful.
An understanding of the nature of motivation will help the teacher to supply
the reinforcement needed by the student to overcome his feeling of failure
in school.

The Nature of Motivation

"Motivation" is often defined as getting someone, usually a student,
to do something which is thought to be a desirable behavior by the educator
in charge. Psychologists and educational theorists extend the concept of
motivation to include the energizing, organizing, directing, and satisfying
elements of behavior (Russell, 1971). In other words, motivation is what
causes an individual to "tick" or to act in a selective, organized way with
a given set of stimuli (O'Connor, 1971). Hunt (1960) notes that the concept
of motivation has traditionally been concerned with three major questions:
(a) What causes the person to become active? (b) What causes the person to
act one way rather than another? and (c) What change is necessary to get a

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person to behave in what is conceived to be more desirable or appropriate?

A Point of Departure

Career education, as the concept has developed and continues to develop, embodies a multiplicity of educational theories that have been tested as well as constructs that have been advocated by educators through the development of the American educational system.

As noted by Herr (1972),

> the intent and the implementation tactics so far apparent
> are to bring these concepts and elements into a new
> systematic interrelationship among vocational education,
> vocational guidance, career development, and other elements
> of the educational and community networks of which they are
> a part (p. 3).

Taylor (1972) views career education "as a new paradigm for education, focusing on career developments" which consider curriculum to be systematic—an integrated and cumulative series of experiences designed to help each student (1) increase power to make relevant decisions about his life, and (2) increase skill in the performance of all his life roles.

Just as the career education concept borrowed from the various conceptual aspects of American education in order to develop a meaningful curricula, the results of which are occupational preparation for each individual at some point on the educational continuum, this paper has borrowed from the educational and psychological research base that existed. This research provides a sound basis for using the career development of students as a basis for motivation. However, the career education concept as a totality has not been tested at this writing and thus the value of the total model cannot be assessed. Implications for career education teachers, especially those who are teaching disadvantaged students, are evident in the research from the domains that have contributed to the development of the career education concept.

Although no systematic attempt was made to link the existing educational research to the emerging career education concept, the teacher who employs this approach to education for occupational preparation should find the research applicable.

This paper includes an exploration of the basic concepts of motivational theory, research that relates to the motivation of the disadvantaged student, and techniques of motivation of the disadvantaged student.

Havinghurst (1969) concludes that teachers of the disadvantaged should have a system of rewards worked out for their classrooms which includes the concept of a hierarchy of reward levels. The teachers should be able to determine what levels of reward are operating in their classroom.

An effective teacher of the educationally disadvantaged must be able to understand his student's behavior so that he can determine what stimulus will activate an individual student in a particular situation so he will perform the desired educational activity. If the stimulus provided by the teacher does in fact motivate the student in a positive manner, it is an appropriate stimuli for that particular situation. A slap on the face may silence the student, but is rarely an appropriate stimulus; rather a friendly hand on the shoulder may give the student the attention he is seeking. However, such an action should be used with caution, since a hand on the shoulder may be an inappropriate stimulus for certain students, especially those from disadvantaged home environments.

Hierarchy of Needs

Although the theories of motivation differ from theorist to theorist there is considerable agreement on the basic energizers that motivate an individual. Often the motivating stimuli are described in terms of needs or drives, whether real or perceived. These needs may be either physiological or psychological in nature, and are generally considered to have some order in

which the individual will attempt to satisfy them. A student needing attention and who is not obtaining it at home, may seek attention in school from the teacher or his peers through disruptive behaviors. The need for attention (love) takes precedence over the need for self-actualization, or becoming all of what one is able. The student who is hungry may be very difficult to motivate in a classroom situation because he may be thinking of ways of obtaining food, a situation not uncommon for many disadvantaged students. Maslow (1943, 1970) has developed a comprehensive theory of motivation based on a hierarchy of needs. His theory includes six levels of needs for which the individual would typically seek gratification. Gratification at one level typically is required before seeking gratification at the next. These levels, in the order that an individual will normally seek gratification, include (1) physiological, (2) safety, (3) love, (4) esteem, (5) self-actualization, and (6) the desire to know and understand. Each need will be discussed in turn.

1. <u>Physiological needs</u>. Although Maslow listed only the major physiological needs such as food and oxygen, the list could be extended to include all physiological needs required to sustain life. Under normal circumstances most of these needs will be met and would not occupy a student's energies to any great degree. However, when these needs are not met they take precedence over all other needs until satisfied. Maslow notes that the person who frequently has been deprived of a physiological need in the past is less able to tolerate deprivation of that need in the future. For example, a student from an economically disadvantaged family who has frequently been deprived of food is likely to cause a disturbance in the lunchroom when another student takes food from his tray. The deprivation of food is a major threat to this student whereas the student

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who rarely has been deprived of food will usually shrug off the incident.

2. <u>Safety needs</u>. People generally tend to avoid extreme danger or to get away from it as quickly as possible. Small children will run from a unfamilar sound or object. The willingness of an individual to risk his safety to satisfy other needs such as recognition from peers is a phenomenon as yet unexplored by theorists and researchers. Any adolescent may from time to time take unreasonable chances with his life to be one of the crowd. A student who has not succeeded in school and who does not receive the love he desired at home may be more prone to seek attention from his peers by performing acts of daring.

3. <u>Love needs</u>. The need for love and belonging is present in all mentally healthy people unless supressed by a more basic need. The need for a student to belong to a school group or a gang will be greater if his need for love is not fulfilled at home. The economically disadvantaged student may have an excessive amount of respons bility in the home, such as care of younger siblings, and may feel unloved and unwanted. In school he may reject the attempts of teachers to be friendly or approving because adults just are not supposed to act that way.

4. <u>Esteem needs</u>. Feelings of self-confidence, worth, strength, capacility, adequacy, and being useful and necessary in the world are sought by all. The self-image carried by an individual will depend on the success he experiences both in and out of school. If feelings of worth are not forthcoming from success in school work, alternatives will be sought to acquire such feelings. Rewards obtained by the outstanding student may be equalled by the outstanding athlete in his contribution in providing a positive self-image. Teachers of the disadvantaged should be aware of the ways that feelings of self-esteem may be enhanced rather than stifled.

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5. <u>Self-actualization needs.</u> The need for self-actualization implies becoming everything one is, or thinks one is, capable of becoming. The degree to which a person satisfies this need depends upon the degree to which his life goals are being achieved. Maslow (1968) describes the self-actualized person as one who is working at something he loves and is concerned with being absorbed in something in a selfless way. It is quite difficult for the student who has lived for extended periods of time in deprivation of his more basic needs to become absorbed in something outside of himself.

A teacher can help a disadvantaged student become self-actualizing by helping him identify occupational goals and the educational requirements or skills needed to achieve this occupational goal. Making progress toward this goal will provide the initiative to learn, especially if the student feels the goal is well-suited to his abilities and is challenging.

6. <u>The desire to know and understand.</u> The need for exploration and experimentation best described this need. A quest for knowledge for its own sake is not apparent in as many individuals as is the tendency to explore or experiment. Children explore and search their environment just to seek what is there. This need can be cultivated in disadvantaged students. However, an appeal to the more concrete need of esteem would probably be more fruitful in motivating the disadvantaged student to learn.

Achievement Motivation

Achievement of some kind is required to satisfy the various types of needs described by Maslow. Based on this assumption, it appears that everyone learns to achieve something in some area. How an individual learns to satisfy these needs early in his life will influence the need to achieve in adolescence and adulthood. A disadvantaged student may choose to be disruptive in school as a means of achieving recognition (love or fear)

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from his teacher or peers. Here the need for recognition is stronger than the need to know or understand.

Fear of failure is also a motivating force in that a student may overtly avoid an activity in which he perceives he will fail. Russell (1971) suggests that achievement behavior can be accounted for by the individual's relative hope for success and fear of failure. Success-oriented persons will persist at a task longer than those who fear failure. Often these latter individuals will change their goals so they do not have to complete a task they expect to fail.

Achievement motivation is learned from repeated experiences which involve standards of excellence (assumed or real). Behaviors which compete with this standard will produce positive effects if the person was successful, or negative effects if he fails. Parents or teachers who insist the child do the task well should be able to develop achievement motivation (McClelland et al., 1953). Rosen and D'Andrade (1959) suggest that achievement motivation involves two kinds of practices: independence training, where the person is encouraged to do the task himself; and achievement training, where the person is encouraged to do the task well. Achievement training appears to be more effective in instilling high achievement motivation. However, they suggest that both conditions should be present.

Disadvantaged students may have been allowed to do things for themselves, out without any standards of excellence attached to these tasks. Many times rewards are not given, or are given inconsistently, so they have difficulty in knowing what is expected or what will be rewarded.

In a study to determine the relation of achievement motivation to achievement training, independence training, and affective sanctions, Rosen and D'Andrade (1959) found that high achievement motivation was developed in

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boys when some or all of the following conditions existed in the home environment:

1. The fathers were competent men who allowed their sons to perform.

2. The mothers stressed achievement training rather than independence training, had high aspirations for their sons, and were concerned about success.

Based on these results it appears that a dominant, aloof father who imposes himself on his son may be detrimental to the development of need-achievement.

Need-achievement motives are developed through recurring situations in which standards of excellence are stressed and where the reinforcer is either an affective expression of approval or disapproval of the behavior. If these motives are not established in the home, the student will probably show less interest in meeting the standards of the teacher. Although need-achievement may be more difficult to develop in students of the secondary level, attempts must be made to develop these motives if the disadvantagement of a student is to be reduced.

Summary

Students are motivated at all times, but often they are motivated along lines which are not educational. A student may be motivated to study in the classroom, to be disruptive, or to daydream. It is the responsibility of the teacher to channel the student's motivations along positive, constructive lines. Often instilling positive motivation in disadvantaged students is a challenge for the teacher. Motivation is based in part upon past experience and expectations, as well as the reward value of a situation. Since disadvantaged students have experienced academic failure and frustration, they will have to be provided with positive experiences before a consistent motivation to learn is established.

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In designing motivational techniques for disadvantaged students, need hierarchies such as that proposed by Maslow should be kept in mind. If a student comes to class hungry or tired, it will be difficult to motivate him to seek knowledge for its own sake. However, many times a career education teacher can tie in his subject matter with some of the more basic needs. Training for an occupation could provide the student with the security of planning to take care of his more basic needs.

The need to achieve is learned in the home. This may not be true for disadvantaged students. Achievement motivation can be developed through independence training and achievement training. Often the disadvantaged student has sufficient training in the former, but not in the latter. In addition, rewards are often lacking or inconsistently given. Thus the teacher should encourage the disadvantaged student to do well, and should consistently reward his accomplishments.

II. RESEARCH RELATED TO MOTIVATING DISADVANTAGED STUDENTS TO LEARN

Much research has been done to identify the characteristics of the
disadvantaged student from the cultural, economic, social, and educational
viewpoints. Summaries of these characteristics have been compiled by
Feck (1971), Oaklief (1971), Walker (1971) and Lockette and Davenport (1971),
among others. Identification of these characteristics provides an under-
standing of disadvantaged students. This is important to the teacher for
two reasons: 1) to identify students for inclusion in special programs,
and 2) to provide insights about those students so the teacher may
develop empathy for them. A primary concern to any teacher, but especially
one of disadvantaged students, are the unique characteristics of these students
in relation to the learning process. It is often more important for the
teacher to understand the psychological aspects of disadvantagement than to
be fully cognizant of the physical environment as a determining factor in
their scholastic success. Research has pointed out a high correlation
between educational disadvantagement and poverty; however, correlational
relationships do not imply causation, so these relationships do not tell us
how disadvantaged students can be motivated. For this reason, only that
research with implications for motivating the disadvantaged student to learn
will be reviewed here.

Self-Concept

The way a person feels about himself influences his acts as well as
his motives. This holds true whether a person comes from an advantaged or

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disadvantaged background. Statements such as "Man, I could never do that" are frequently heard in the classroom, and reflect an individual's perception of himself' and the things he feels he is able to accomplish.

Combs (1971) has suggested that the self-concept is the most important single factor in determining what a person is able to do under any given circumstances. It is how a person feels he will do in a given area that determines his success to a greater extent than the skills he might possess in that area.

Just as the reasons for behavior are vague, so are descriptions of self-concept. A definition offered by McCandless (1967) states that self-concept may be conceived as a "set of expectancies, plus evaluations of the areas of behavior with reference to which these expectancies are held." Self-concept is considered to be learned, and may be altered by the individual, his peers, or the adults who interact with him.

Self-Concept: Disadvantaged Students and Motivation

A prolific area of research dealing with self-concept has been the exploration of the relationship between this construct and social class. Results of studies in the area indicate no clear and definite pattern of relationships between social class and positive and negative self-concept. Although there is a tendency for persons from the upper and middle classes to express favorable self-attitudes, the differences between the groups is neither as large nor as regular as might have been expected (Coopersmith, 1967). Social prestige is differentially valued, both among social classes and between children and adults. Children (and youth) generally place less importance on social status, since for them it is ascribed rather than achieved.

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Self-concept appears to operate either separately from social class or in a manner not generally predicted. For example, Trowbridge (1970) found that children of low socioeconomic class, often termed "culturally disadvantaged," consistently held a higher self-concept than did children of advantaged areas.

Findings such as these have implications for those planning curricula for the disadvantaged. Hirsch and Costello (1967) concluded from a study in a lower class black ghetto school that the heterogeneity of students in this environment, both in self-concept and achievement, suggested a need for greater precision in defining various aspects of social disadvantagement. Educational disadvantagement cannot be assumed from economic or cultural differences as they are currently defined.

A. Soares and L. Soares (1969) suggest that the disadvantaged youth can acquire self-acceptance through modeling the behavior of others in their environment, especially if this imitative behavior is reinforced. Self-acceptance can take the form of a self-fulfilling prophecy (McCandless, 1967). For example, when the student "knows" he will fail, he usually does, and because he "expected" to fail, he does not have guilt feelings about the failure.

Development of self-concept is related to basic needs, i.e., the way an individual receives recognition (esteem) contributes to his set of expectancies. McCandless (1967) suggests that this relationship of self-concept to needs is a function of certain characteristics of the self-concept, and is exemplified in an individual's selection of some recreational or avocational areas and rejections of others. Success at different activities has a different reward for different individuals. Reward will depend both on its value to the individual as well as his prediction of his success or

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failure in that particular activity.

If we define educational disadvantagement as not achieving to capacity, then students who are educationally disadvantaged generally have been under-achieving for extended periods of time when they reach high school. Research has shown the relationship of self-concept to academic achievement to be high. For example, Paschal (1968) found that significantly more students classified as having adequate self-concepts achieved well in the academic areas of science and English.

Results of a study by Hirsch and Costello (1967) to determine structured motivational factors for the identification of achievers and underachievers, indicated that such categories were not sufficient in distinguishing the achiever from the underachiever. Clinical impressions regarding the quality of interpersonal relations and level of self-concept were the factors with the greatest potency for distinguishing achievers from underachievers. It was suggested that achievement is strongly related to 1) interpersonal relationships, and 2) the possession of a clearly defined positive self-concept.

A. Soares and L. Soares (1969) suggest that the elementary school years, especially at the fourth grade or above, are the prime time to develop a positive self-concept. Before this time the self-concept generally is not stable. Career educators planning programs should consider aspects of self-concept enhancement at this and higher levels. However, even though the self-concept is not stable in younger children, it should not be ignored in program planning.

Although in general self-concept appears to operate separately from social class per se, certain factors intrinsically related to aspects of social class may determine a youth's self-concept. Coopersmith (1967)

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reviewed studies dealing with relationship of father's work history to the self-concepts of his children. There was no indication that the father's occupation as such related to the self-esteem of his children. However, children apparently are affected more by the treatment they received from their parents than by the prestige generally associated with their father's work. Children do seem to be affected by whether the father is employed or not. If a child perceives that his father is unemployed, there is less likelihood that he will have a positive self-concept. The child may become upset when he sees that his father is constantly at home, worried about financial matters, and discouraged or bitter about his inability to find a means to support his family.

There appears to be no relationship between a child's self-concept and the extent to which the mother is presently employed or was employed during his earlier childhood. However, mothers of children with high self-concepts are likely to have worked for long periods and to have expressed more favorable attitudes toward their work.

In general, the results of the influence of social background on self-concept indicate that broad social contexts and prestige hierarchies do not have as pervasive and significant an effect upon self-concept as generally assumed, but suggest that instead conditions in the interpersonal environment are important areas of consideration.

Conflicting results in research on the self-concept in disadvantaged students may be a result of a number of factors not related to the variable under study. For example, the construct "self-concept" is many faceted, and several instruments have been designed to measure these various facets. Also, there is no widely accepted definition of disadvantagement, especially of degree. Often studies employ few if any controls for concomitant confounding

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variables such as reading level or vocabulary of the test. Hence, studies reporting differences in self-concept should be examined carefully before accepting the conclusions.

Soares and Soares (1969, 1970, 1971) have completed several studies, all of which show that disadvantaged students have a higher overall self-concept score than do advantaged students. On the other hand, Cook (1969) found that advantaged students have a higher self-concept than do disadvantaged. This was revealed in the advantaged students' feeling more adequate in their social interaction with people in general, as compared to the disadvantaged students who revealed somewhat more defensiveness and a greater propensity toward psychological disturbance. Paschal (1968) found these latter aspects of self-concept (social interaction, defensiveness, and psychological disturbance) to be highly related to self-concept. Murray and Wellman (1971) have provided evidence that the educationally advantaged student perceives himself as playing a student role to a greater extent than does the disadvantaged student. Academic achievement was highly related to the identification with the student role for both blacks and whites. When a particular aspect of self-concept, e.g., identification in the student role, was considered, educationally disadvantaged students held a less positive perception of themselves than did advantaged students.

A possible cause for discrepancies reported by the various researchers is that the nature of self-concept is such that an individual can feel "good" about some aspect of himself, and less positive about another aspect. The disadvantaged student may see himself as a fighter and prize his physical strength, while the advantaged student may see himself as a moderately good student and value that academic role. Instruments measuring the self-concept generally attempt to cover areas from the physical to the academic. Students

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scoring extremely low on such instruments are probably very depressed about themselves. The fact that nearly all students feel good about themselves in some respect gives the career education teacher of the disadvantaged a chance to help an individual build on his good points and help the student try activities in other areas. He may also create in the student the need for more cognitive aspects of learning.

McDaniel (1967) points out that the research literature would lead one to believe that the "culturally different" child has a negative self-concept. Results of McDaniel's research, which failed to confirm previous research, showed no significant differences between ethnic groups. Zirkel and Greene (1971) studying fifth and sixth grade students, found no difference in self-concepts of Puerto Rican, black, and white students. Thus, membership in a minority group apparently did not relate to self-concept. Contrary to these findings, Dales and Walters (1969) found that black youth had higher self-concepts than whites.

Personality is relatively stable once a student completes his elementary school years. Since self-concept is an aspect of personality, it too is rather stable. However, the construct of the self-concept is valuable to educators nonetheless, since a student may be motivated through capitalizing on the aspects of his self-concept about which he feels good. Overt attempts at changing the self-concept may prove futile; therefore, more subtle techniques are necessary. For example, involving students in programs designed to alleviate their disadvantagement to some extent, and at the same time enhance their self-concepts have often resulted in positive changes in the student.

An example of the above is a study by L. Soares and A. Soares (1971) in which disadvantaged children in grades one to six were involved in a six-week summer program which included remedial reading and mathematics along with avocational

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and recreational activities. Results show that significant changes occurred for the self-concept dimensions of "how they think parents view them" and the "Ideal Self Concept." Although there was no control group involved, it appeared that this remedial program designed for disadvantaged students was instrumental in elevating the self-concept of its participants. In addition, persons associated with the students, including the parents and teachers, also perceived and reported increases in the students' self-concepts.

Summary

Research has shown that certain aspects of the self-concept of disadvantaged students are different from those of advantaged students. When studying students from the fourth through eighth grades, Soares and Soares (1969) found that in general, advantaged students saw themselves as being happy, self-confident, trusting, fearless, and worthy individuals; whereas disadvantaged students perceived themselves as being independent, adaptable, competent, patient, and deliberate. It is easy to see how the disadvantaged student in his quest for identity would feel good about himself in these categories and yet fail to achieve academically. The self-concept of an individual about academic achievement can provide the impetus for achievement. A student may not perceive himself as a studious individual, and hence not play the "role" of student. However, he may be "able to see himself" as a mechanic, and do very well in this area. Applications of self-concept theory in relation to goal setting as a technique for motivation will be discussed later in this publication.

The Teacher's Role

Since a student who feels good about himself and his abilities generally does well both educationally and occupationally, it is important for teachers

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to 1) be aware of a student's self-concept with all of its diverse aspects, and 2) actively attempt to enhance a student's self-concept. These ideas are important for all teachers, but especially so for the career education teacher who influences the student directly through his interpersonal relations, and indirectly in his influence in other areas of the students' endeavor. A student's occupational choice and training will have more pervasive and enduring effects upon him and his self-concept than will most of his other areas of study.

Following is a summary of research findings about self-concept that will help the teacher understand this construct, since understanding is essential to enhancement.

1. By the time a child enters school, he has already formed a picture of his value as a human being. His self-concept is resistent to change, for if this construct changed much, he would lack a consistent personality. However, there can be change when situations are conducive to change and if the need is great enough (Purkey, 1967).

2. The child's view of his environment and of his place in his environment determine his reactions and his behavior.

3. Sensitivity is the ability to sense what an individual feels about himself and the world. The teacher should be able to predict how his students are viewing themselves, their subject, and the world (Purkey, 1967).

4. The self-concept is learned; you learn who you are and what you are, from the significant others in your life, from the ways people have treated you. Every good experience a person is given is given him forever (Combs, 1971).

5. Each behaves in terms of his beliefs about other people. If you believe a man is honest, you will trust him. If you believe a student is able, you will give him more freedom (Combs, 1971).

6. Each child has individual, unique strengths and sensitivities (Woolner, 1971).

7. All students experience inner conflicts from time to time, but a positive self-concept gives students the strength to face these conflicts (Woolner, 1971).

8. The maintenance and enhancement of the perceived self is the motive of all behavior. If a student sees the educative process as personally meaningful and enhancing, and if the degree of threat provided by the school experience is not overpowering, then the child will learn in school (Purkey, 1967).

9. People learn that they are able, not from failure, but from success (Purkey, 1967).

10. Personal identity is firmly established only when one has a sense of what is right and wrong for him, and feels that he is able to choose among alternatives (Yeates, 1971).

11. No one of any age does anything with determination and verve without being involved in it. The learner does not have to have his own way, but he has to see that the task is a worthy one before he can spend his energy on it in any true sense (Kelley, 1965).

There are many specific activities that the teacher can do to enhance a student's self-concept. One very important variable is how the teacher feels about himself, for he reflects these feelings onto his students. Specific ways in which a teacher can enhance a student's self-concept include the following:

1. Praise achievements no matter how small (Woolner, 1971).

2. Avoid labeling the student (Woolner, 1971).

3. Ignore negative behavior, if possible (Woolner, 1971).

4. Provide opportunities, climate, and encouragement which students need in order to safely explore who they are, who they want to be, and what relation to the rest of us and the world of things they want to have (Howe, 1971).

5. Treat the student with dignity. Sometimes all it takes for the teacher to recognize each student is a look that really sees the student individually and tells him you are glad he's there (Massey, 1970).

6. Provide a supportive educational atmosphere. The student should be made to feel that he belongs in school (Purkey, 1967).

7. Study his character and behavior in relation to himself rather than to the entire group (Woolner, 1971).

8. Encourage his assets and interests (Woolner, 1971).

9. If the student gives a wrong answer or makes a foolish mistake, let him see it in the context of having been a good experience for him (Massey, 1970).

10. Point out areas of accomplishment, rather than focusing on mistakes. Continuing awareness of failure results in lowered expectations, not learning (Purkey, 1967).

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11. Listen intelligently to each student; let him be a partner in determining his activities and work load (Woolner, 1971).

12. Consult with the student, listen to him and support him in his attempts to express himself (Purkey, 1967).

13. Provide positive, constructive, specific information instead of generalizations. For example, "let's work harder to understand adding fractions with different denominators"; rather than "you're doing poorly in arithmetic."

14. Utilize teaching procedures which provide each student with honest, success experiences (Purkey, 1967).

15. Put value on academic, artistic, and manual abilities equally (Elkind, 1971).

16. Encourage students to contribute their knowledge to class and group discussions. Too often students are given the impression that school has great things to bestow on them, but that they have very little to bring into school (Morgan, 1971).

17. Set realistic short and long term goals (Woolner, 1971).

18. Give students responsibilities that match their capabilities Woolner, 1971).

Locus of Control of Reinforcement

Definition

The concept of internal-external control has now gained prominence in many diverse areas of research. As defined by Rotter (1966), internal control represents a person's belief that rewards follow from, or are contingent upon, his own behavior. Conversely, external control represents the belief that rewards are controlled by forces outside himself and thus may occur independently of his own actions. Measures of this construct have proved useful in explaining a variety of behaviors, including occupational and educational aspirations, planning and activity oriented to reaching goals, attempts at mastering the environment, involvement and persistence in achievement tasks, academic performance, and exertion of influence over others.

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A number of studies of motivation and performance of black students suggest that they, in comparison with whites, are less likely to hold strong beliefs in internal control; that social class and race probably interact so that lower status blacks particularly stand out as externally oriented; and that internal control is a critical determinant of academic performance. Coleman, et al., (1966) suggest that internal control is usually important for black students in two ways: It explains more of the variance in achievement for black than for white students; and it explains more variance for black students in academic behavior than any other measure.

Another closely related concept evident in the literature about poverty groups and the disadvantaged is powerlessness. Seeman (1959) defines powerlessness as the expectation or probability held by the individual that his own behavior cannot determine the occurrence of outcomes, or reinforcements, he seeks.

The disadvantaged have often been classified as being fatalistic and thus feeling that they are unable to do anything about their situation. This characteristic of the disadvantaged has implications for the teacher who is planning strategies for motivation of the disadvantaged student in that this student may not respond to certain stimuli because he may think that anything he does will not affect the outcome, the reinforcement he receives. The terminology of internal-external locus of control of reinforcement has been used to explain whether or not an individual perceives that reinforcements he receives are a result of his own actions. Thus the degree to which an individual perceives his reinforcements as contingent upon his own behavior or independent of it is a measure of internal-external locus of control with those who more often see the reinforcements they receive as caused by their

own behaviors being termed "internal" while "externals" are those who believe that their reinforcements are caused by forces outside themselves over which they have no control (McGhee and Crandall, 1968).

Locus of Control and Academic Achievement

The relationship of locus of control, academic achievement, and learning has been approached with various techniques by several researchers. Often conflicting results are reported, especially relating to race and social class. Some of these conflicting results may be the results of the measurement device used. For example, Rotter's Internal-External Control Scale purports to measure generalized expectancies about personal control, while the Intellectual Achievement Responsibility (IAR) (Crandall, Katkovsky, and Crandall, 1965) measures the construct only in the area of academic achievement. A third commonly used scale is that by Bialer (1961) which is quite similar to Rotter's, except that it is geared toward younger children.

A study by Battle and Rotter (1963) using the Bialer measure shows middle-class children have a greater belief in internal control than lower-class children and also yields an additive race-class effect, such that lower-class blacks were the most external. Lessing (1969) using a similar measure, obtained significantly more internal scores for white than for black adolescents. Studies using the IAR in preference to the more general locus of control measures report no race differences (e.g. Katz, 1967; Solomon, Houlihan, and Parelius, 1969) and only very slight social class effects (e.g., Crandall, Katkovsky, and Crandall, 1965).

Coleman, et al., (1966) found locus of control to be the single most important variable in predicting achievement for both white and nonwhite children. McGhee and Crandall (1968) obtained similar results for both boys an girls who scored higher on a locus of control measure. Those with

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high internal scores also had significantly higher report card grades.
Significant relationships of achievement test scores were also obtained
with the high internal students of both sexes having higher achievement
test scores.

Locus of control has also been found to be correlated with IQ as
well as grades in a study by Clifford (1971). IQ was found to be a
better predictor of grades for girls while locus of control was found
to be the better predictor for boys.

Additional support for the hypothesis that educationally disadvantaged
students are more external than advantaged students is provided by
Buck (1970) who found that adequate achievers were significantly more
internal than were low achievers.

While many of the factors that cause a child to develop a particular
orientation toward locus of control of reinforcement have yet to be
determined, the effect of externality on academic performance is more
apparent. The general effect is, the more external an individual is, the
poorer is his academic performance. McGhee and Crandall (1968) studying
elementary and secondary students found that high internals had significantly
higher report card grades than did low internals (externals). Conclusions
made from these results were that attainments of higher grades seemed to be
facilitated by both the acceptance of responsibility for attaining academic
success as well as the acceptance of blame for causing failures. These
findings were substantiated by Crandall, Katkovsky and Crandall (1965) in
a study of students at the upper elementary and secondary levels.

Nowicki and Roundtree (1971) using a population of secondary school
students, found that locus of control predicted achievement for boys, but
not for girls. They also noted that locus of control was not related to

intelligence test scores. If the locus of control dimension relationship to academic grades reflects real difference in performance, not just in the teacher's perception of the performance, achievement test scores should also be related to this dimension. Scores on Intellectual Achievement Responsibility questionnaire (Crandall, Katkovsky and Crandall, 1965) were found to be significantly related to measures of academic achievement. In this study the IAR (a measure of internal locus of control) scores were found to be related to achievement-test measures for girls. The self-responsibility for failure, a subscore from the IAR, was significantly correlated to measures of academic achievement for boys.

Similar results were reported by McGhee and Crandall (1968). Here as with the Katkovsky and Crandall study, there was not a significant relationship between IAR scores for boys and their academic achievement scores whereas there was for girls. Students of both sexes having high internal orientation had higher achievement test scores than low-internal students. For girls this difference in achievement was approximately one-third of a year by the fourth grade.

Evidence that the locus of control variable has an effect on academic performance at the college level is provided by I. Katz (1967). In this study it was found that internally oriented students were more likely to engage in behavior which would maximize their chance for academic success than were externals. In addition, it was found that students who were chosen by their discussion group leaders as high class participators were internals rather than externals.

Most of the studies concerning locus of control seem to imply that the higher the internal score, the better off the student. The IAR scale does make the distinction of responsibility for failure as well as for success,

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although most measures of locus of control are global. However, the failure-success distinction should become more important when trying to understand the motivation and behavior of people who have a history of much failure and whose failures are tied to real external obstacles they have faced. The failure-success distinction should be particularly helpful in studying black youth who have encountered social constraints associated not only with race but also with low income and lower-class status. For such young people, an internal orientation based on responsibility for their failures may be more reflective of intrapunitiveness than of efficacy. An internal response reflecting acceptance of blame for one's failures, which might be considered "normal" in the typical middle-class experience, may be extreme and intrapunitive for a black youngster growing up in poverty in the ghetto.

Locus of Control, Social Class and Race

In general, economically disadvantaged children are consistently more external than are nondisadvantaged children, lower class black children are exceptionally external. Stephens and Delys (1971) and Stephens (1971) found that disadvantaged children at the age of four tend to be less internal than advantaged children with black disadvantaged children being somewhat more external than white disadvantaged children and boys being more external than girls.

Ethnic group differences were noted by Battle and Rotter (1963) who found that the lower class black student was more external than were the middle class white as well as the middle class black student. They hypothesize that these ethnic group differences may be caused by different reactions due a person's ethnic group memberships. That is, when a black person encounters deprivation due to ethnic group membership, he may defend

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himself with an external attitude while the white person may blame himself
for his failure. On the other hand, Shaw and Uhl (1971) did not find a
consistent difference between blacks and whites. Rather the differences
found in this study were between social classes with the students from the
lower socioeconomic levels being more external. A difference between blacks
and whites were found only at the upper-middle socioeconomic level with
whites being more internal. Stephens and Delys (1971) state the powerful
role of economic status on the development of locus of control was shown
by the fact that children who were from families just above the poverty
line were more internal than those below the poverty line.

Further evidence that the economic status of the family has an impact
on the externality of the student is provided by Battle and Rotter (1963).
They note that combined influence of social class and ethnic group
membership make the lower class black student the most external of those
studied.

Although research regarding locus of control of reinforcement on
ethnic groups other than black and white is less extensive and more fugitive,
it is reasonable to assume that members of other groups will be found to be
more external. For example, Sundberg, Rohila and Tyler (1970) found that
students in India were more external than were American students.

Walls and Smith (1970) suggest that disadvantaged children are more
external and hence are impaired in the learning process. They found that
being internal is positively related to willingness to delay gratification.
In addition, this study replicated the findings of Stephens and Delys (1971)
in that disadvantaged students were more external in their locus of control.
Thus it appears that a disadvantaged student is less likely to participate in

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a learning situation which results in delayed gratification rather than immediate gratification. The findings of this study have implications for the motivation of disadvantaged students in the schedules or timing of the rewards. These concepts will be developed more fully in the section on "Techniques of Motivating the Disadvantaged."

Whether or not the locus of control variable is motivational in nature, it appears that this construct is one with which the teacher, especially one teaching the disadvantaged, must deal. The recognition that the construct of locus of control is an important and controlling personality characteristic should be made. In addition, it should be noted that this personality trait is not an either/or situation. That is, a student is not either internal or external. Rather, he is somewhere on a continuum on various factors and tends to be more internal than external or vice-versa. Hence, the teacher of the disadvantaged should be constantly aware of the nature and frequency of reinforcements given to the students and they should be shown frequently that what they do, does make a difference in the outcome and resulting reinforcements.

Although an internal orientation is generally thought preferable, this is not always the case for the black student. Low status and low income people, particularly blacks, often believe that economic or discriminatory factors are more important than individual skill and personal qualities in explaining why they succeed or fail. Instead of depressing motivation, focusing on external forces may be motivationally healthy if it results from assessing one's chances for success against systematic and real external obstacles rather than the exigencies of an overwhelming, unpredictable fate. Career education teachers can do much to promote motivation of disadvantaged youth by helping them come to grips with the real obstacles and planning courses of action to overcome them.

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Aspirations

Aspirations of individuals, both educational and occupational, could possibly be related to all six needs proposed by Maslow (1970), as described in the introductory section of this publication. Atkinson (1964), on the other hand, has developed a theory of achievement-oriented activity more directly related to an individual's need to achieve success, and hence to avoid failure. He suggests that a person's tendency to achieve success is directly related to 1) his motivation to achieve success, 2) his estimation of the probability of achieving success, and 3) the value of that success.

With aspirations and anticipated achievements being somewhat synonomous, it appears that this theory would also apply to aspirations. A person's occupational or educational aspirations would be directly related to his motivation to achieve success in a particular occupational or educational activity, his estimation of his success in that occupational or educational endeavor, and the value of achieving that success. An educational program designed to raise the educational or occupational levels and aspirations of disadvantaged students should take these variables into account.

This section will be devoted primarily to research related to the educational and occupational aspirations of disadvantaged youth. Educational implications of these findings will also be explored.

Research comparing the educational and occupational aspirations of disadvantaged and advantaged students has yielded some differences, but many similarities. The differences are neither striking nor unexpected. The similarities are encouraging and offer a basis for motivating disadvantaged students in career education programs. However, teachers should guard against

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overoptimism in motivating disadvantaged students to excel in their school work in order to accomplish their educational and occupational aspirations.

Few studies have taken into account the tendency toward external orientation of disadvantaged students who often feel that what they do in school has nothing to do with the occupation they will be able to enter. Disadvantaged students often feel that fate or luck has more to do with later career success than success in school. Career aspirations provide an opportunity for the teacher to motivate the student by bringing the student's aspirations and his progress toward these aspirations into focus. Any dissonance brought about by this comparison should cause the student to change either his aspirations or his mode of behavior regarding the progress toward his aspirations.

Current research generally indicates that the aspirations of both disadvantaged and advantaged students are skewed toward the professional end of the scale. Campbell, et al. (1969), however, found that disadvantaged junior high school boys and girls differed significantly in their occupational aspiration level from their advantaged counterparts with the disadvantaged students having career aspirations more evenly distributed across the various levels of careers than those of the advantaged, which were skewed toward the professional end.

The relatively high level of occupational aspirations held by male disadvantaged students was found to be relatively independent of the father's level of occupation. Occupational plans, on the other hand, were somewhat more closely related to the father's occupational level. The situation for females was found to be similar to that for males. The disadvantaged females planned occupational levels somewhat related to the

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mother's occupational level of occupation. It should be noted, however, that this relationship was only slight, and that disadvantaged students' planned occupational level deviated considerably from that of either parent, and was not locked into a particular level.

Feshback, et al. (1969) obtained similar differences between disadvantaged and nondisadvantaged students. Disadvantaged males tended to aspire to the lower occupational levels as compared with advantaged male students. The lower occupational aspirations among disadvantaged students found by Campbell, et al. are not substantiated by many similar studies. Using "Haller's Occupational Aspiration Scale," Granville, Schmidtke, and Webb (1969) found that inner city disadvantaged students had higher occupational aspirations than did either suburban or rural lower-middle class students. They suggested this difference was caused by the exposure to higher occupational levels for the inner city students. Thus, the urban students, despite the fact they were termed disadvantaged, were aware of the many occupational possibilities.

Studying black ghetto students, Kuvlesky, et al. (1969) found that a majority of inner city students, both male and female, have high-level income aspirations as well as occupational aspirations. However, among those having low level aspirations, females outnumber males, the proportion of females to males being 2:1 for low level income aspirations, and 7:1 for low level occupational aspirations.

Studies comparing disadvantaged ethnic groups on the basis of occupational aspiration include those by Astin (1970) and Kuvlesky (1970). The results of these studies show that disadvantaged students, both black and white, have high aspirations for both income and occupational level.

Results are inconclusive as to which ethnic group has the higher

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aspirations, since socioeconomic status and environment seem to be important factors. Kuvlesky (1970), in a study of high school sophomores, found white students to have slightly higher income and occupational aspirations. In general, disadvantaged students from both ethnic groups had high levels of income and occupational aspirations.

Studying college level disadvantaged students, Astin (1970) found disadvantaged students and a cross-section of students to have similar occupational objectives.

Many factors impinge upon the economically disadvantaged student's educational aspirations and his subsequent ability to live up to his aspirations. Suchman, et al. (1968) report the following restraints as having a significant effect on the educational level aspirations of the poverty level student:

Constraining Social Structure and Interpersonal Conditions

* Low objective social class position

* Low subjective class identification

* Low degree of parental pressure for college

* Low degree of peer influence for college

Constraining Demographies and School Characteristics

* Female

* Non-college prepatory courses

Constraining Social-Psychological Factors

* Negative attitudes toward school experiences

* Negative self-concept or self-image

Research studies, however, do not always agree that these factors influence the aspirations to a very great degree. Kuvlesky (1970) found that black ghetto students have very high educational aspirations, with

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those of males being higher than those of females. Kuvlesky and Upham (1967) found a majority of teenage rural black and white tenth graders to have high educational aspirations, with blacks having somewhat higher educational aspirations than whites. Here, almost three-fourths of the black male students wanted to obtain a minimum of four years of college. Astin (1970) found that disadvantaged college students tended to have higher educational aspirations than a random sample of students with disadvantaged blacks having the highest educational aspirations.

Campbell, et al. (1969) found that most advantaged males expected to complete four years of college, while a more even split between those expecting to eventually graduate from college and those desiring to graduate from high school was obtained for the disadvantaged students. Disadvantaged students, however, reported giving more thought to their scholastic plans. Disadvantaged students reported finding school somewhat easier than did advantaged.

Studying black Neighborhood Youth Corps participants Eisenthal and Strauss (1970) found that approximately one-half of the youth aspired to go to college while the remaining one-half did not feel they could do college work.

Aspirations of the drop-out and the student who has nearly dropped out of school usually do not appear in the research literature, since most research of this nature is done with intact classes. Theimer (1970), however, studied students who had nearly dropped out of school to determine why these students did not attend regularly. He asked questions concerning the curriculum. Students reported desiring more emphasis on things that would help them get a job, more information about jobs, a new course in consumer education, and group discussions of teenage problems and how to handle them. Students

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reported that neither school attendance nor the content of many courses had
relevance for them.

Studying goal hierarchies, Kuvlesky, et al. (1969) found that disadvantaged
black students ranked the importance they placed on their status goals as being
1) education, 2) occupation 3) income, and 4) residence. These rankings
were the same for both males and females. In an earlier study, Kuvlesky and
Upham   (1967) found that blacks and whites ranked the importance they placed
on their goals nearly the same, with only occupation and income being reversed.

As stated earlier, students can have aspirations for high levels of
education and occupation, while at the same time be somewhat aware of the
constraints placed upon them by their situation. Often their plans are more
in line with these constraints than are their aspirations.

Campbell, et al. (1969) asked disadvantaged and advantaged students to
list the problems they anticipated in implementing their occupational choices. .
Education was listed by both advantaged and disadvantaged students as being
the most important problem. Financial problems were ranked as second by
disadvantaged students, while advantaged ranked performance as being their
second more important deterrent to achieving their goals. Job choice and
placement opportunities was ranked third by disadvantaged males and advantaged
of both sexes. Disadvantaged females ranked financial problems as being third.
It was noted that a higher percentage of disadvantaged than advantaged students
failed to respond to this question concerning the potential problems in
implementing their career plans. The author suggests this could be due to
their not understanding the question, or because of their inability to come
to grips with their constraints on them.

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Summary

Research findings are not consistent relative to the level of occupational and educational aspirations for advantaged versus disadvantaged students nor for black versus white students. It was noted, however, that students do need more information about the career possibilities open to them so they can make choices of careers better suited to them.

An important function of the career education teacher is discussing the student's aspirations with him, and helping him make concrete plans to implement his aspirations. Many times students drop out of school because they perceive school as irrelevant and not helping them fulfill their occupational aspirations. Career education teachers can use student occupational aspirations as a source of motivation, especially for disadvantaged students.

Self-Actualization

Self-actualization is one of the highest levels of the human needs described by Maslow (1970), as described in the introductory section of this publication. This need has been defined as man's desire for self-fulfillment, or his desire to become everything that he is capable of becoming. If a teacher believes that every student has a potential for becoming more than he currently is (to become self-actualized) this belief will have far reaching effects on his responses to students.

Combs (1971) suggests that educators try to determine what situations surround the success of the academically gifted child rather than searching him out so that special nourishment can be given. Knowledge of how the gifted child succeeds should provide input to assist in the education of the disadvantaged student. Maslow (1968) suggests in assisting a person to become self-actualized, one should start with his talents and draw him

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out to do the best possible in the area in which the individual expresses interest. The student's interests and hobbies should be valued and used as a basis for teaching and motivating the student. The teacher should not try to "remake" the student by attempting to change his interests into something the teacher feels they should be.

If a teacher respects the student's interests, the student is allowed to retain the essential quality of being human: the need to choose and choose correctly. This is especially important for the disadvantaged student, who is often externally oriented and feels that what he does, does not make a difference. Raebeck (1965) notes that in order for the student to choose, he must have the support of those close to him: his teachers, parents and peers.

Restraints on the self-actualization of the individual are physiological as well as psychological. If Maslow's hierarchy of needs theory is accurate, the disadvantaged student cannot be expected to work toward being all that he can be when his physiological and safety needs are not met. Combs (1971) enumerated several limits to the full realization of human potential, including:

1. Physiological limits: The student should be healthy as well as well-nourished. Being healthy is not an either or situation, since the student is in some degree of healthiness. He is not either completely sick or completely healthy. Likewise with nutrition: he is usually neither completely malnourished nor is he overnourished.

2. Opportunity: Human behavior is a function of opportunity. If opportunities to develop a particular ability do not exist, that ability will never develop. A task of the teacher in motivating his students is to provide some opportunities.

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3. Human needs: The student cannot be expected to become self-actualizing until his lower level needs are met. Deprivation of these needs may result in failure in school, maladjustment socially or emotionally, or criminality, as the person attempts to fulfill his needs.

4. Self-concept: The student learns in terms of his self-concept. If he perceives himself as a good student he usually does well. If he feels he cannot do schoolwork, he probably will not succeed in school. Self-concept is learned from the significant others in a student's environment through the way they have treated him. If a student has an inadequate self-concept, he may become trapped in his own perceptions. If he believes he cannot learn to read, he will not try and thus will not learn. Self-concept, then, is a self-fulfilling prophecy. The student should be aided in achieving a positive self-concept in order that he can be self-actualizing.

5. Challenge and threat: Under conditions of threat the student's attention may be focused only on the threat rather than on the problem. If an adequate learning environment is to be maintained, the student should be challenged rather than threatened.

Elkind (1971) suggests the most significant barrier to the development of human potential is the established value hierarchy of human abilities. In general, parents and teachers value the academic and scholarly abilities required to enter the professions, including the managerial abilities required for success in business. They place the lowest value on manual trades. Because of this traditional value system, students with manual abilities and interests may be encouraged in their interests only after repeated failure in a "higher level" occupation. Possibly the teacher or parent will cause the student to feel some disgrace in his choice. The career educator has the

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responsibility for showing equal respect for the carpenter and the medical doctor. Equal emphasis should be placed on manual and professional occupations. Students choosing either should not be made to feel superior or inferior because of their choices.

If education is learning to grow and learning what to grow toward as Maslow (1971) suggests, the idea of "working to capacity" does have usefulness. Murphy (1971) suggests ways in which self-actualization can be motivating. If a task is presented to students in a challenging way, and if their efforts are valued by their teachers and parents, the students will probably value the experience themselves, and go on to accept further challenges.

Every person has a broad range of potentials that may be fulfilled at different times throughout his life. Frequently, a potential will only be realized only after a period of growth in the individual's self-concept. That is, a person may have a potential for a certain job, but it is only after he believes that he can do it that he actually will succeed. His self-concept must be enhanced before he has the confidence to develop all of his interests. Once he has accomplished a task or job, he becomes more proficient and may have the confidence to go on to another job that will give him increased satisfaction.

The perfect career has been described as one in which an individual finds increased satisfaction and challenge from each new position or occupation. Moving from job to job, provided that each new job is more challenging and satisfying, is a way in which the individual may become self-actualized, and develop his potential as well as his self-concept. In many cases the individual would not be able to move into another occupation

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due to lack of an adequate self-concept. Similar situations may also arise in the classroom, when the student does not feel he is capable of doing a specific task. In these cases, a teacher may need to provide a related task for him to accomplish. In this manner his self-concept will be enhanced, and he will develop the confidence to do the task he previously felt unable to perform. However, a note of caution is in order, especially for teachers of the disadvantaged. In selecting an alternative task, the teacher must be careful not to choose one that is too easy, resulting in disgrace of the student before his peers. The student needs to feel a sense of accomplishment, rather than to feel he has been doing busy-work.

Attempts at changing scores on self-actualization instruments via short-term structured and unstructured workshops and t-groups have in general not been successful in producing the desired changes. Examples of studies attempting to enhance self-actualization include those by Aubry (1970), Fisher (1970), Jepson (1969), Moates (1970), and Oliver (1970). Some studies, such as that by Oliver, reported changes toward increased self-actualization. However, in general, these results suggest that becoming self-actualized is not something that can be done in a one-week workshop or 15 sessions, one per week. Rather it must occur over a period of time as a result of successful experiences, of an enhanced self-concept, and of increased confidence in oneself.

The career education teacher of disadvantaged students may use case studies to encourage students to become more self-actualizing. Kellough (1968) suggests that the use of case studies allows that student to remove himself from the actual situation, make recommendations based on rational approaches, and to learn the concepts of decision-making needed for educational

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and vocational development. By using case studies, the student needed not feel that a particular solution is impossible because he could not do it himself. Practice in efficiency at performing tasks as well as acceptance of others are two of the constructs of the concept of self-actualization (Maslow, 1970). These constructs can be practiced through role-playing as well as case studies. To be effective, cases should be drawn from situations similar to those of the disadvantaged student.

The self-actualized person is also characterized by the acceptance of himself and others (Maslow, 1970). Since helping others usually leads to acceptance of the person assisted, encouraging a disadvantaged student who has mastered a particular topic to help another disadvantaged student can bring about a feeling of responsibility and success to the helper. It also can help him in developing better acceptance of and empathy with others.

Summary

Self-actualization is one of the highest level needs proposed by Maslow. It comes about only after a person has an adequate self-concept, and can accept himself for what he is. In addition, his lower level needs must be satisfied. Teachers of the disadvantaged can help their students to become self-actualizing through enhancement of each student's self-concept, total acceptance of the student, and efforts toward helping the student accept himself. All of these activities are motivating, and are especially relevant for the career education teacher. He has the most important task of helping a student select an occupation that will help him realize his full potential. Since often the full potential of the disadvantaged student is buried in a poor self-concept, a fatalistic attitude and a traditional stereotype, helping a disadvantaged student become self-actualizing is indeed a challenge.

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III. TECHNIQUES FOR MOTIVATING THE DISADVANTAGED

Constructs of motivation and their application to disadvantaged students were explored in the previous section. This section will explore ways that motivation of disadvantaged students has been approached, and the relative merits of the various approaches and techniques.

Rewards and Success

The need for recognition, discussed previously, is evident in all individuals. The types of rewards most desired by various individuals differ as do the responses to various types of punishment. In other words, different rewards and punishments produce different effects on different people. A wide variety of rewards should be employed in the classroom, and matched with each student's values as much as possible. The reward should be congruent with the student's values.

Klausmeier and Ripple (1971) note that a reward is something given to a person which brings pleasure or satisfaction. This "something" can be materialistic, verbal praise, or nonverbal gestures. If appropriate rewards are given immediately, there is a tendency for the behavior exhibited to be strengthened and repeated.

An individual can learn to be rewarded by doing something well. This is an intrinsic reward, as opposed to an extrinsic or material reward. A disadvantaged student may need extrinsic rewards because he typically has not suc-

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ceeded in school. The acceptance of doing something as a reward will come only
after he has been assured many times through extrinsic rewards that he has been
successful. The teacher must therefore provide opportunities for success, and
followup the success with an appropriate reward and assess whether an intrinsic
or extrinsic reward is appropriate. In either event, success will encourage
the student to repeat the approved mode of behavior and be further successful.

Teachers frequently do not give rewards congruent with the behavior (Law-
lor, 1970a). The reward may be totally inappropriate to the situation, and
because of this, may not be as meaningful as it could have been. Lawlor (1970b)
found that the use of verbal rewards incongruent with the behavior will result
in less efficent problem solving than would occur with no reward at all. On
the other hand, appropriate verbal rewards improved problem solving efficiency.
Verbal rewards should reflect what the student has done successfully. If he
has completed a scientific experiment, he should be praised for that accomplish-
ment rather than being told that he is a good boy.

The reward given must be relevant to the needs of the individual as well
as being appropriate for the activity associated with it (McCandless, 1967).
Just as praise for being a good person is not related to completing an experi-
ment successfully, praise from a person whom a student does not respect will
not provide as effective a reward as would praise from a respected person.

Disadvantaged students need not always be successful in the classroom, for
this would give them unrealistic expectations about themselves and possibly
would cause difficulty once they leave school. In addition, they should not
be punished for nonsuccess, but rather should be aware that they are not per-
forming a learning activity correctly. Moore and Holmes (1969), investigating
various conditions of verbal rewards including success, success-failure, and

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and failure, found that the combination of verbal rewards and failure tended

to cause students to persist longer in the involvement on similar tasks fol-

lowing termination of verbal conditioning procedures. In addition, rewards

need not always be directed toward the individual. Jacobs (1970) found that

group rewards were much more influential than either individual rewards or a

combination of group and individual rewards. Peer pressure to do well and not

let the group down is a factor here.

Verbal rewards to one student can serve as a modeling cue to another. One

student may observe another perform an activity and receive a reward. He may

then follow the same procedure, attempting to receive the same reward. Vicari-

ous rewards, or rewards to another person, serve primarily to focus the stu-

dent's attention on the relevant cues (Liebert and Fernandez, 1969). This

points out the need for consistency of rewards. If a teacher praises the top

member of a class for doing an activity correctly, and fails to reward a dis-

advantaged student with an equally appropriate reward for performing the same

tasks, the disadvantaged student will soon stop trying to model rewarded be-

havior. His lack of rewards for activities rewarded in others will confirm

his external orientation: nothing he does makes any difference.

As pointed out by McCandless (1967), a student who is withdrawn from

class may be drawn into participation if a particular stimulus can cause him

to respond. If a correct response is followed by an immediate reward, and if

the student values that reward, he may pay attention in class a higher per-

centage of the time. Another technique for including the withdrawn student in

class activities is to encourage him to report some of his experiences to the

class. This may be a reward in and of itself if the student is proud of a

particular personal experience. However, in order for a teacher to make full

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use of his students' experiences as a teaching and motivating technique, he must be well acquainted with the students. This degree of acquaintance may require visits to the student in his home.

An example of how students can be motivated through successful educational experiences is provided by Vitrogan (1968). This project was an especially designed physical science class in which 20 eighth grade students were enrolled. The students in this class were considered to be nonliterate, and were reading at or below the third grade level. They had been unable to cope with the curricula in which they had been enrolled. The activities included in this class were designed to provide a high motivational level, and an atmosphere for arousing curiosity and interest. The students were approached with various experiences, ranging from simple to complex, with the attitude that they could learn. The students were able to demonstrate the ability to work with concrete science material in a meaningful way. In addition, they developed the ability to reason abstractly. The motivational effect of the science experiences resulted in a desire to read and write about their experiences.

In this example, students who could not read were presented with a situation in which they were successful and in which a need to read was created. The result was the necessary motivation required for these students to learn to read materials which were related to their scientific experiments, and to write about their experiences. The activities in this class could easily have been oriented toward students' prospective careers, or could have created interested in a particular career related to physical science.

Summary

Being rewarded for doing something correctly usually causes that behavior to be repeated. Techniques for rewarding disadvantaged students may differ

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slightly from techniques for advantaged students. If a teacher perceives a disadvantaged student cannot do much, he may reward trivial behaviors, some of which may not be related to classroom behavior.

The rewards should be appropriate to the situation and meaningful to the student. Often disadvantaged students respond better to extrinsic rather intrinsic rewards, but should be encouraged to work for intrinsic rewards whenever possible. A reward from a person not respected is much less effective than one coming from a respected person.

Rewards should be consistent for both advantaged and disadvantaged students. If a disadvantaged student sees another student receiving a reward for a certain behavior, he will expect a similar reward for performing a similar behavior. If that reward is not forthcoming, he may feel that his efforts do not make a difference and give up trying.

An effective reward is the sharing of experiences when these are relevant to the class discussion, and when the student is willing to share them. The teacher must know his students well in order to make use of this motivation technique, and may need to make student home visitations.

Feedback and Reinforcement

A low need achievement among disadvantaged students may come about in part due to their feelings of having no control over the outcomes of various situations. One technique a teacher may use in developing need achievement is to show the student that his actions do make a difference. Feedback, or knowledge of results, is a motivational technique based on theories of behavior change. It is relevant here as a device to instill need achievement.

As noted in the introductory section of this publication, feedback provides an individual with information about how he is doing, and may include hints as

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to how he can improve his situation. Feedback of a positive nature will pro-
bably provide reinforcement and increase the probability of repeated behavior.

Types of reinforcement have generally taken three forms: verbal (either
written or oral), nonverbal (physical gestures or contact), and material (e.g.,
money, food, or special privileges). Although the concept of feedback or rein-
forcers are not new, little was known about their relative effects on student
learning until recently.

Research exploring the relative effects of the various types of feedback
has been conducted using a variety of techniques. In general, it has been found
that all three types of reinforcements have a positive effect on learning.
Zach, Horner, and Kaufman (1968), in a study involving fourth grade ghetto stu-
dents, found that material incentives were no more effective than other strat-
egies in reinforcing learning in disadvantaged students. Similar results were
obtained by Uselmann(1971) in a study of preschool disadvantaged students. It
has generally been assumed that disadvantaged students, especially preschool
children, will perform better with a material system of rewards. However,
Uselman's study found no differences in the reinforcement value among the vari-
ous types of feedback including material, nonverbal and verbal.

Based on research with a similar group of preschool disadvantaged child-
ren, Teager (1969) and Teager and Stern (1969) suggest that children can learn
to receive feedback stimuli as information signals and use them in quite dif-
ferent learning situations. It seems that if preschool disadvantaged children
can learn to receive informational verbal feedback, it is reasonable to assume
that older students can also be taught to do so.

Studies involving material incentives include those by Bemis and Schroeder
(1969) and Nesselroad and Vargas (1970). These studies, in elementary and

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secondary school respectively, show that students can improve their academic

performance through material incentives. At the elementary level, students to

whom tangible rewards were given improved their mathematics scores signifi-

cantly over those students without such rewards. At the secondary level, lower

class college-bound students improved their study habits as a result of an in-

centive point system, through which the student could improve his class grade.

Incentives in the form of food, cigarettes, and money were found to be of

particular value by Jeffery (1967) in working with delinquent high school drop-

outs in an urban ghetto. In this case Jeffery discovered:

1. Incentives can be used to gain cooperation and to develop
   motivation in a lower class delinquent population.

2. Reinforcement must be immediate; in this case, walking
   into the educational center was action enough to call
   for a reward.

3. The shaping of behavior must start with the student's
   present level of performance and progress to the desired
   goal through small steps by use of the technique of
   successive approximations.

Incentives need not be provided only by the teacher, but may be provided

by the student himself (Wark, 1969). Students enrolled in an adult reading

course were taught techniques of self-reinforcement. As part of the class,

they were asked to determine their rewards for accomplishing certain reading

improvement goals they had established for themselves. Thus, they were obli-

gating themselves to accomplish their goals or face pressure from their fellow

class members. In this situation, motivation to improve reading skills ap-

peared to increase.

Verbal feedback is the most easily provided reinforcer, and appears to be

as valuable as any other. Thus, the career education teacher should learn to

use verbal feedback effectively. Davison (1971) suggests that the attitude of

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the student toward the teacher may be a significant factor in how he responds to reinforcement. Attempts to influence the disadvantaged students' behavior may be limited not only by the teacher's abilities to use positive reinforcement, but also by the students' attitudes toward the teacher. Previously it was shown that rewards from a respected person had more meaning than rewards from a non-respected person. The same holds true for feedback.

Studies on the use of reinforcement in the classroom have frequently found that it was not necessarily the absence of reinforcement that caused students to perform below their level of ability, but rather the lack of appropriate reinforcement for a particular student. Zach, Horner, and Kaufman (1968) found that social reinforcement afforded by the relationship between a student and a tutor were as important as other types of reinforcements given. The close relationship between the tutor and the student appeared to provide some of the basic concepts students from advantaged families usually obtain through family interaction, but which are often lacking in disadvantaged students.

Two-way communication is essential to feedback. Even though the student appears to understand the instructions given by the teacher, what the student thought he heard may be entirely different from what the teacher thought he said. Two-way communication may be threatening to some teachers but it is necessary if feedback and reinforcement techniques are to work. For instance, a student laboring under a false assumption of what he is to be doing in a laboratory may perceive the teacher's attempts at negative reinforcement entirely wrong. The student thinks he is following the directions quite explicitly, and cannot understand the negative feedback. Instead of giving negative feedback, the teacher can ask the student what he is doing, and through the ensuing conversation, the misunderstanding can be cleared up.

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Understanding by teacher and student of what the student has learned can also improve the learning situation, and most likely the motivation. Harris (1970), studying the effects of unscheduled and scheduled quizzes on the unit test grades of underachieving high school students, found that scheduled quizzes increased class responses from the student, and praise for high quiz scores was sufficient reinforcement to improve the class average from "D" to "C+". Harris notes that incentives given by the teacher alone are probably not adequate to improve the performance of students. Rather, incentives should be included in the teaching procedure. Greater opportunity for student response, more feedback from student to teacher, and more reinforcement from the teacher will probably be useful in improving class grades.

Travers (1964) also found that two-way communication between teacher and student not only increased the student's score on those items on which they interacted, but also on the items which the student learned by observation. Verbal interaction between student and teacher has a motivational effect on the student and even influences the acquisition of information while he is not interacting.

As pointed out by Klausmeier, et al. (1970), feedback assists the student by making him aware of the adequacy of his responses, thereby aiding him in acheiving high quality responses. Feedback, then, is essential in attaining both short and long term goals. Goal-setting strategies, and factors influencing the attainment of goals will be discussed in the next section.

Summary

Feedback is essential if the student is to know if he is making progress. Verbal, nonverbal, and material feedback appear to be equally efficient in producing learning. For high school students, verbal feedback in the form of

information appears to be quite effective as a motivational device, and as will be shown in the next section, in setting realistic goals. The reinforcement should be appropriate to the situation and for the student. Often social reinforcers are effective for disadvantaged students, since it is through such interpersonal interactions that they can learn certain concepts usually acquired through family interaction. In addition, disadvantaged students receive the feedback necessary for academic growth.

Two-way communication between the teacher and student is essential to feedback. The value of information as a verbal rein 'orcer depends upon its relevance to the situation. Misunderstandings between the teachers and the students can cause frustration and blocks to learning. Communication can often clear up these misunderstandings before they hamper learning.

Feedback, then, is essential as a motivational technique, as well as an important aspect of goal-setting behavior.

Setting Goals

In the section discussing rewards and success, it was emphasized that teachers of disadvantaged students should provide them with opportunities for success. As noted by Klausmeier, et al. (1970), making progress and attaining goals result in feelings of success, just as not making progress and not attaining goals result in feelings of failure. A backlog of successful attainments will encourage continued effort and realistic goal setting. However, how a student perceives what he has done is sometimes different from the evaluation of the teacher. For example, a student may do as well as the teacher expected and receive favorable feedback, yet feel thwarted because he aimed higher. Another student, who does poorly, may accept poor performance as being inevitable, and he has, in effect, fulfilled his expectations or his goal.

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Research indicates two basic types of procedures for training students to establish educational or academic goals for themselves: individual and group conferences. The relative effect of individual goal-setting conferences, group goal-setting conferences, and no conferences has been studied by Sorenson, et al. (1970), who found that students trained in goal-setting techniques made large gains on behavioral ratings given by the teacher as well as the student. Individual conferences were found to be more effective than group conferences, and group conferences more effective than no conference at all. Gaa (1970a) found that participation in group goal-setting conferences improved students' goal-setting behavior. This improvement was attributed to the training rather than the conference. The goal-setting training was also more effective than a combination of training and a conference. Students who had only a conference, and no training made no improvement in goal-setting behavior.

In another study, Gaa (1970b) found that students who participated in goal-training sessions set fewer goals. This was interpreted as representing a more realistic statement of those goals set. Further evidence that this training helped students set more realistic goals was evidenced by the students' achievement of their goals. Students trained in goal-setting techniques came closer to achieving their goals than did students who had not received such training. Shea and Cohen (1970) found that motivation training helped students set more realistic goals, and achieve them more successfully.

The basic question, of course, is not whether motivation training will improve goal-setting abilities, but rather the effect of such training on academic performance. Gaa (1970b) found that students trained in goal-setting techniques attained higher achievement levels on both specially developed and standardized achievement tests. Goal-setting training was augmented with feedback

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in this study, and may account for some of the gain.

Shea and Cohen (1970) found that goal-setting strategies appear to be re-
lated to academic performance. Students who set very high goals, and thus very
risky strategies, tend to perform poorly in schoolwork. Since high externally-
oriented students would be expected to set unrealistic goals, this finding is
congruent with the information concerning locus of control as discussed earlier.
In exploring the relationship of academic performance to locus of control, Shea
and Cohen found that internals were more realistic in goal-setting. They chose
problems nearer their ability levels and were more successful than externals
in solving the problems they chose. After motivational training in goal-set-
ting, the internals did not significantly exceed the externals in level of per-
formance, although they did score somewhat higher. The training appeared to
help external students to be more realistic in setting their goals.

The positive and negative attitudes brought about by success or failure
in attaining goals often generalize to other areas, both in school and out.
A student's history of success has a cumulative effect on his self-concept and
his expectations (Cronbach, 1963). Attainment of goals appears to lead the
student to set realistic goals; constant failure may either lead the student
to lower his goals so he can be successful, or raise his goals so high that
when the inevitable failure comes, he can take pride in his goals rather than
his accomplishments. It therefore appears to be important to give disadvan-
taged students training in goal-setting techniques, since they often have a
history of failure by the time they reach high school. Success, or a realis-
tic hope for success, nearly always increases interest and effort. Disadvan-
taged students need to be aided in attaining success for many reasons, including
an enhanced self-concept and interest in learning. Training in the setting of

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realistic goals appears to be one way of helping them achieve success.

In addition to becoming more realistic in goal-setting, Gaa (1970a) found that students who had participated in goal-setting conferences had a lower confidence level. They felt they probably would require help in achieving their goals, and perhaps they might not achieve all goals set. Students who had not participated in such conferences were sure they could achieve their goals, even when the goals were unrealistic. From these results, it would seem that students involved in goal-setting conferences would be much more open to instruction, while the nonparticipants would be more resistant to assistance from the teacher. The goal-setting conferences appeared to help students examine their strengths and liabilities, and set goals accordingly. Goal-setting conferences also helped students realize that they might need help on occasion if they were to achieve all the goals set.

In addition to goal-setting conferences, disadvantaged students should participate in the planning of their education, and be encouraged to consider their tentative occupational choice as a long term goal. As short-term goals, students can be encouraged to pursue tasks to help them achieve long range goals. Frick (1969) proposed a group of activities that would help disadvantaged students establish realistic and achievable goals for themselves. These activities include:

1. Participation in determining policies and developing procedures for regulating student behavior and relationships in the school and community.

2. Identification of significant problems which are of concern, studying the problems, and development of plans of action for intelligently dealing with them.

3. Study of occupational career opportunities which show promise for both immediate and long range career development; becoming aware of the demands and potential rewards of various occupational groups; knowledge of

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the competencies needed by the individual for success
in the various occupations; and beginning the establish-
ment of career goals.

4. Analyzing their own educational status and needs in
   terms of their immediate and long range goals.

5. Development of individual and group plans of action
   designed to attain their educational needs.

If goal setting is an important factor in motivating disadvantaged students,
the question then becomes: What are the deterrents to using goals in the edu-
cation of disadvantaged students? Klausmeier, et al. (1970) propose four
reasons why the student so infrequently sets individual goals in the school
environment:

1. The same tasks are accomplished by all students during
   a specific time.

2. The teachers are not able to assess accurately each
   student's achievement level and personality characteristics.

3. The teacher either does not take the time, or have
   the ability, to help students set and attain realistic
   goals.

4. Instructional materials and activities are often not
   available to permit the kind of instruction required
   by individual goal-setting and goal attainment.

It would appear that any program designed to assist the disadvantaged stu-
dent should resolve these problems prior to the first class session.

Klausmeier, et al. (1970) suggest the following as being the more impor-
tant points of a goal-setting conference:

1. Goal-setting conferences involve a one-to-one relationship
   between adult and a student on a regular basis during which
   the adult sets goals for the student, the student sets goals
   for himself, or the adult and student jointly set the stu-
   dent's goals. Every child should have an initial conference
   during which he is told the purpose of the conferences and
   how they are to be conducted. An individual record sheet
   should be available at the first conference and shown to
   the student with the explanation that the child will keep

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track of the student's achievement in relation to the goals that are set.

2. Each conference always includes positive social reinforcement of desired behaviors and attitudes related to the subject. Concrete rewards may be given in some cases if necessary. Punishment and threat of punishment are not used.

3. The adult manifests desirable attitudes toward mathematics (or other class) and also demonstrates correct performances in the presence of the child.

4. An individual record is kept for each child. The record consists of the specific subject-matter achievements of the student, as well as a description of the concepts and skills to be learned in the future.

5. Conferences are held systematically with respect to length of the conference and spacing between conferences. Weekly conferences of 5 to 10 minutes work well. Once children set goals realistically and achieve reasonably well, the conferences need not be so frequent but clearly specified times should be set (p. 21).

Summary

Disadvantaged students need opportunities for success. These success experiences may be provided through the setting and attainment of realistic goals. Since often disadvantaged students have a history of failure, they need help in setting and attaining their goals.

Research suggests several methods of helping students set goals, including individual and group conferences, knowledge of results, feedback, and training in goal-setting techniques. Realistic goal-setting appears to be a useful motivational technique. However, it often is not used as frequently as it could be because of the time and effort needed from the teacher. Its value would seem to merit the effort from the teacher, for one of the most potent motivators, especially for disadvantaged students, is success, and that success can often be obtained through the setting of realistic, attainable and meaningful goals.

Creative Thinking

A recurring problem of teachers and counselors is getting students interested and involved: the essense of motivation. Many times the "I don't care" student has the most potential, and is the greatest loss to society when he drops out of school. All too often the emphasis is on the outcome of learning as measured by a skill or achievement test. Courses usually pertain to subject matter concerns only, and in the push for fact and skill acquisition, school becomes dreary and depressing for many students, resulting in unmotivated students who turn their attention elsewhere, including disruptive, aggressive classroom behavior. It may be possible to make the situation brighter (and more enjoyable) for both teachers and students by encouraging each student's creative potential through creative teaching and counseling, as well as rewarding creative behavior.

What is Creative Thinking?

Many definitions have been suggested for this behavior. However, a more simple definition is often most appropriate. Creative thinking may be thought of as the process of using our past experiences to come up with new and better ideas. It is more than just the fact-acquisition portion of learning...it is synthesizing that which is learned into some organized fashion so that it may be used at a later time. Thus, a key for teaching for creative thinking is to stress the relevance of the topic, so that it may be incorporated more easily into the cognitive structure. Creative behavior is the outcome, or overt expression, of creative thinking.

In classrooms where creative behavior is encouraged and rewarded, the student interests are taken into account to a greater degree. A consequence is a higher level of interest and motivation. A characteristic of creative

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behavior is that the person wants to do something. Imagine a class of
students engrossed in projects thought up themselves, in contrast to a
class where all projects are predetermined and students must come up to
a certain standard, a process which is quite dissimilar from many jobs
in industry. Teacher-selected projects have another drawback for
disadvantaged students: often these projects are relevant only to the
teacher.

If the disadvantaged student is allowed to select his own project
through conferences with the teacher, together they can determine just
what will be appropriate for the student as an individual and to meet
the requirements of the course. The self-selection of meaningful projects
could be developed through an emphasis on the creative potential of the
students, thereby increasing the student's confidence in his own abilities
and enhancing his self-concept.

Young children are naturally curious and excited about learning.
As they progress through the grades, however, they are often thwarted
in their curious behavior since there is so much to learn as defined in
the "regular" curriculum with no time left over to explore interests. By
the time a student reaches high school, his creative powers generally have
been quite thoroughly stifled. At this level, it is a matter of restoring
these abilities, rather than preserving them as would be the case for
younger students.

A concommitant problem with the need for the restoration of these
abilities is the increased number and intensity of pressures to conform
and to produce in a convergent manner. The stress in the typical
vocational classroom is usually on the mastery of content and skills,

whether they be agricultural, industrial arts, home economics, or business. Exams must be passed to make the grade, earn the units, and graduate from high school. Once graduated, however, the stress from employers is on the ability to think and to work independently. It is little wonder that many students go into the labor market improperly prepared, since their preparation consists primarily of memorization and regurgitation rather than thinking for themselves and planning their own work.

How can creative thinking be used to overcome some of these blocks and increase the motivation and interest of these students as well? By rewarding and stimulating creative thinking in the classroom, the teacher won't necessarily produce creative geniuses. However, increased interest in the subject, and in school, may well be the result. For example, by using the discovery method of teaching, where the teacher sets up the learning environment but the student does the learning by himself by searching out solutions and testing their validity, the teacher is aiding the student in acquiring skills. These skills will help him face both social and intellectual problems of various types. Since discovery learning places much of the learning responsibility on the student, this in itself is motivating, for it helps the student develop an image of self-capability and individual accomplishment. This is especially important for the disadvantaged student, who has often met with successive failures.

Because of the importance placed on the thought processes and the valuing of ideas in stimulating creative thinking, students will be better prepared for the job market, where employers are looking for people who can think for themselves. Many times students are not encouraged to think, especially when their ideas do not jibe with the teacher's. Often unique

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solutions are not encouraged; the convergent thinkers are the only ones getting the rewards, while the divergent thinkers (creative thinkers) get the scorn and ridicule of both the teacher and his peers.

Damm (1970) found that sources on intelligence tests were only partial predictors of later outstanding successes. Although the creative skills may not be valued in the high school setting, they are necessary for later success. In fact, these abilities may be what differentiates between the outstanding success and the mediocre plodder-alonger.

The most difficult area is that of peer acceptance, since the adolescent's peer culture is generally quite inflexible about accepting "strange" ideas. Here, the teacher should set an example in the acceptance of unique ideas. Perhaps the approach here is for the teacher to be on the side of the creative student, and to support his ideas when they are presented. Studies on adults reveal a positive relationship between creativity and mental health. Types of persons studied include architects (MacKinnon, 1962), writers (Barron, 1963) general creative individuals from various occupations (Roe, 1963) and college students (Heist, 1968). In addition to giving the person a plus on the job market, creative thinking (and the accompanying enhancement of the self-concept) could help the person be healthier mentally.

If the goals of American education are to help every student reach his fullest potential, the way to begin is to help him recover that portion of his intellect which has been stifled: his creative thinking abilities.

How Can Creative Thinking Be Encouraged?

In stimulating creative behavior, much rests with the teacher since students have probably been "turned off" for some time. A good place to

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start would be with creative teaching, as well as showing acceptance of the unique contributions of the class. Examples of creative teaching would include the devising of new ways of demonstrating a difficult point, not feeling threatened by an unexpected response, departing from the book when the temper of the class seems to warrant it (this includes capitalizing on the experiences of individual students within the class), and above all, not being afraid of trying something different.

It is not difficult to bring creative teaching into the classroom, especially if the teacher is aware of some potential blocks to creative teaching. Some of these blocks include rigidity in planning, closed questions, "monotracking," and "textbookitis." A teacher who plans each day's lesson in such detail as to forbid any deviation either in content or pace is regimenting the class to one narrow path with few opportunities to explore the tantalizing sidetracks. Imagine how dreary it would be to be forced to drive a certain route on a vacation and not be allowed to stop and explore some fascinating side road; think how many memorable spots would be missed. To overcome this block, the teacher must be flexible enough to see the potential in student questions and able to develop these interests by encouraging students to explore and share their ideas. Disadvantaged students bring with them many experiences the teacher has not had. Incorporating these experiences into the lesson will increase the relevance of the course for these students, as well as provide insight into student backgrounds for the teacher.

Another block to creative teaching is the closed question, where the teacher is looking for one specific factual response. This type of questioning leads to the thwarting of interests rather than the

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development of them. Open-ended questions and acceptance of unexpected responses would be ways of overcoming this block. Teachers too frequently cut off a student response that to them seems wrong, without first examining the student's point of view.

"Monotracking" is evident in many classes. Here all students study the same thing at the same time. It is much easier for the teacher, especially in a lecture-type class, but it is also just as easy (and highly probable) to turn off many students. Although it may not be possible to use a multitude of tracks and individualize the course extensively for each student, it is possible to consider the interests and abilities of the students and incorporate these into the lessons at various points. This block to creative teaching is especially important to overcome in classes with both advantaged and disadvantaged students. Interests probably differ among these students, as well as their abilities. It has been suggested that creative expression is a hidden talent of disadvantaged students (Torrance, 1968). Many times these talents are expressed in nonverbal ways which may be unique to the teacher. By capitalizing on these talents, accepting each student as an individual, and being aware of each student as lesson plans are made, a teacher will probably be able to overcome this block to creative teaching.

The use of student experiences in an auto mechanics class where topics such as trouble shooting, makes it possible to involve all students in the class by allowing them to share their experiences.

"Textbookitis" is a disease common to all too many teachers. Here the class follows the text, page after page, chapter after chapter, until the end is reached and the content is supposedly mastered. A problem here

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as with the monotracking system, is the stifling of interests and curiosities, and in the process, lessening the motivation of the students. Capitalizing on student interests, exploring alternative points of view, and encouraging student participation through the sharing of interests would be ways of overcoming this block. A teacher may provide numerous references on a given topic at various reading levels, and allow the student to choose his own materials when in-class problems are to be solved. This procedure allows the less adept student to select a reference that suits his interests as well as his reading ability.

What specific activities and methods, in addition to creative teaching, can be used in a high school class to encourage creative thinking, and increase motivation? Using an open-ended situation, such as a hypothetical problem, would be one way of stimulating thinking and idea-generating. Outcomes would be unpredictable, and could bring about a new point of view. The students should be encouraged to generate and develop their own ideas. When a teacher lets a student know his idea is good, the student feels good about himself, and about the course, and will probably try harder to succeed. Students rarely regard the completion of an assignment as any particular accomplishment. However, a project designed and built by the student may not only meet the same educational objective, but may long be remembered by the student as a good part of his education.

The teacher should find value in each student, so that the student may in turn find value and a sense of worth in himself. A student who is valued has a positive self-image, and is better able to achieve, whether it be acquiring a typing skill or turning out a lathe project. A student who "knows" that he cannot type rarely learns to type well.

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Individual differences should be thought of, and treated as an asset rather than a liability. In line with finding value in each student, know each student as an individual so that each can contribute something to the class. A question as simple as "Which valve is open when a four cycle engine is on the intake stroke?" may prompt a hesitant learner to enter the discussion in a science class.

Other suggestions for fostering creative thinking include attribute listing, synectics, brainstorming, and checklists. All of these methods may be used with practically any subject matter, and with advantaged as well as disadvantaged students. Attribute listing entails the designing of something new by systematically changing the attributes of something until a new product is formed. In a mechanical drafting class studying automobile design, perhaps a new engine to be used for non-polluting cars could be designed by starting with a present model and changing the design, feature by feature, until something new is produced.

Synectics (Prince, 1967) is a structured approach to problem solving, where the individual is provided with a procedure to increase the probability of his success and hasten the arrival of an innovative solution. The synectics process involves two basic activities: making the strange familiar and the familiar strange. To make the strange familiar, analyze the concept or problem, and relate it to something in everyday life. To make the familiar strange, invert or distort the ordinary into something unusual. To use this process in the classroom, it would be necessary to explain these processes to the students. Once they master the strategy, it could be used for any number of situations.

Brainstorming is the process of generating a multitude of ideas without evaluating them. The goal here is to encourage students to have many ideas, and to thoroughly examine these ideas before evaluating them and rejecting some possibilities. Possible ways to make a car run faster, better, or longer are examples of this activity.

The checklist procedure is similar to the attribute listing technique, with the exception that certain steps are performed each time. For example, first the color is changed, then the shape, and then the size, to come up with something unique. The teacher should devise a list specific to the course, and encourage students to try the list on many different things. Students might be encouraged to design lists of their own also, and try these on various products.

Adolescents are typically adventurous; their interests are developing and may be rather unstable. Disadvantaged students often have far-ranging interests that could be readily tapped as sources of motivation. When creative teaching is used in the classroom, and other suggestions for encouraging creativity are followed, students will be able to become more self-actualizing, and to a greater extent, fulfill their potential. Creativity entails valuing the individual, and in so doing, the student's self-concept will be enhanced. The creative thinking and teaching techniques discussed in this section are by no means a definitive and exhaustive list. They are merely suggestions for motivating students and should not be taken as recipes. Rather, they are intended to spur the teacher's thinking along lines which may be new to him, especially in dealing with career education for disadvantaged students.

Variety of Techniques

Many techniques designed to motivate disadvantaged students have been successful. Some of these techniques will be discussed in this section. However, not every technique will work with every student. Factors which must be considered in selecting a motivational technique include the personality of the student, the meaningfulness of the goal to him, his perception of his ability to achieve in the subject of activity under consideration, and the satisfaction of his physiological needs.

Implementation of the various techniques has ranged from changing the total program to adding something to a regular program, to simple changes in the teacher's style of presentation. Many techniques are apparent from the discussion of research in the previous section. In addition, the teacher should use his own experiences in creating techniques that will work for him, keeping in mind the needs of his disadvantaged students. What has been successful in the past may not work with a particular class. A teacher should be aware of the pitfalls of shaping the student to the motivational technique rather than making the technique appropriate for the student.

The purpose of this section is to point out some of the techniques used with disadvantaged students, anticipating that examples of the techniques will serve as catalysts to the creativity of the teacher of the disadvantaged. The following motivational techniques are presented as examples rather than recipes, and as samples rather than a comprehensive listing of all possibilities.

Planning Together

The involvement of students in the planning process, even though the teacher may have a good idea of what needs to be covered, is a motivational technique suitable for all levels of students. The interest generated as a

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result of a discussion of what is to be done, the identification of the importance of the activity for the student, and the recognition of the student as a person worthy of assisting in planning, contribute to the success of this technique.

Teachers in a motivation center (Youngstown Public Schools, 1970) were encouraged to start their classes by planning activities with the students. In addition, they were instructed to accept anything creative and/or original from the student in an attempt to recognize the meritorious efforts on the part of that student. In this way corrective instruction becomes secondary, but is not eliminated.

As noted by Sears and Hilgard (1964), learning can be fun if what is to be learned is made meaningful by including something students already know about and like. Planning should include the students' experiences if they are relevant to the situation at hand.

Student Responsibility

Many techniques have been employed to encourage students to become more responsible in the educational setting. Responsibility is not new to many disadvantaged students, especially girls who often care for younger siblings. In the school setting however, many opportunities for student responsibility for their own education have been overlooked. It has been suggested that responsibility can be taught, and is a good motivating technique. MacKintosh, et al. (1965) suggest that civic pride, a form of responsibility, can be taught through assigning students as helpers in activities involving younger children. Such a one-to-one relationship can help both the student being helped and the student providing the assistance. Just as classroom teachers frequently learn more than the students, so might the student helper learn

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more than the student being helped. In addition to the subject matter mastery, the student helper's self-concept will probably be enhanced since he was singled out as a valuable person capable of teaching another person.

Placement for supervised work experiences may also provide opportunities for assuming responsibility. In addition to the employment experience itself, the monetary reward may encourage, or in many cases allow, the student to stay in school. Hamburger (1965) reports that such training can be obtained through a cooperation of the school with municipal organizations as well as private industry. The municipal-based cooperative program described by Hamburger was effective in developing generalized positive attitudes toward work and improved attendance at school. In addition, the students placed for employment experiences seemed to show improvement in manners, morale, and general behavior.

Special Interest

A technique often employed in developing programs for disadvantaged students is using a special interest as a vehicle for teaching many other skills. These other skills may be more typically taught as a part of an academic course. The career education teacher has the unique opportunity of showing the interrelationship of occupational and academic skills. For example, a typist needs to know spelling and grammar as well as how to type.

The invention of games by a group of disadvantaged students was described by Ruchlis (1968). In this program, students were asked to create number and word games, which were in turn sold. The students could see quite readily the value of their work. The designing of the games was motivating, and provided an opportunity for: 1) the acquisition of oral communication skills (discussion among students to work out an idea with a group and explain it to

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the others); 2) acquisition of written communication skills (writing the rules for each game for which the student felt the necessity of using both correct grammar and spelling); 3) acquisition of mathematical skills (applying mathematics in the development and trial of the number games); and 4) application of artistic and visual communication skills (doing art work and drawing geometric designs to scale in the development of boards for the games). Ruchlis suggested that this program resulted in the breaking of the chain of self-fulfilling prophecy of failure by providing students an experience in which they could use their intellectual and creative abilities.

Conway (1969) discussed a program in which the element of special interest was a small airplane. In this program 25 near dropouts, with numerous infractions of various school rules, were taught by four teachers who related the typically academic courses to the airplane and a pilot. Improved speech, as a result of talking to ground control via a radio from the airplane, better school attendance, and more positive academic motivation were reported effects of this technique.

Archer (1968) described a project in which acting and pantomiming permitted freedom of expression from the disadvantaged students. Previously these students had not expressed themselves freely, due in part to a poor self-image and a failure complex. Success of the program was measured by the fact that the students wrote and presented five radio plays.

Walker (1971) used a land laboratory, growing plants, and animals to stimulate the interest of disadvantaged male students. In this project, science, mathematics, and grammar directly relating to the activities of the land laboratory and school shop were taught. Positive results were observed in all academic areas and in attitude toward self and school.

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Tutorial Programs

Tutorial programs of various kinds have been suggested as having a dual purpose: alleviating disadvantagement to some extent, and providing motivation to learn. A summer tutorial program for 16 year-old inner city male youth (Hogan and Horsfall, 1970) brought about significant positive changes in attitude toward school and a higher percentage of students who entered college. Academic grades, however, were not affected.

Roseman (n.d.) related a tutorial program in which a special education teacher (helping teacher) assisted students in planning their goals. The classroom teacher then became the central figure in carrying out the plans made for each student. The supportive relationship developed between the helping teacher and the student was considered to be the major tool, and resulted in improved self-concept and academic performance of these disadvantaged students.

Home Visits

Understanding the individual student is a concern of most teachers, especially those working with disadvantaged students. A student must be understood so he can be treated as an individual with specific interests and needs. In order to know a student well, one must have some knowledge of his home situation and family background. This can best be learned through visits with the student and his family in their home. In addition, parental support of the school or a specific subject can often be obtained. Parents usually have high aspirations for their children, but these aspirations are seldom conveyed to the student. Therefore, the student may feel that his parents do not support his educational endeavors. The teacher can serve as a catalyst for communicating aspirations of the parents to the student. Blanton,

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et al. (1967) suggest that in the case of migratory students, home visits should be made soon after the student enrolls in school. The student will feel more accepted into the class, the family will feel welcome in the community, and the teacher can develop a better understanding of the student so he can identify the student's special needs, problems and interests.

Badger (1968) incorporated home visits as an essential teaching technique in a program designed to teach mothers to tutor their one and two-year-old children. Here, home visits were important in providing corrective feedback of the principles of teaching, and helping the mother build a positive working relationship with the child.

Home visits were employed extensively in Project REDY (Phipps, Thomas, and Williams, 1970), a family-centered, vocationally-oriented educational program for severely disadvantaged rural families. This program was designed to assist rural disadvantaged youth to enter the mainstream of education and employment by involving the total family in an educational program. Here, home visits were made after each of 12 group meetings to discuss the content of the group meeting and to make family plans concerning the topics discussed.

Problem-Solving and Discovery Learning

Kersh (1962) investigated the motivational effects of discovery learning. He provided high school geometry student's with three ways of learning complex rules of addition. The directed-learning group used a programmed learning booklet; the guided-discovery group used a Socratic method which required each student to make inferences about the rules without help; and a control group memorized the rules and obtained no explanation for them. The results indicated that the guided-discovery group used the rules (his measure of

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motivation) significantly more often than did the directed learning group. The author concluded that interest is a result of learning by discovery.

A problem-solving approach was used by Johntz (1967) to teach abstract, conceptually-oriented algebra. Students who had previously failed to grasp concepts in remedial arithmetic due to the failure connotations of a "remedial program" were able to learn the higher order concepts via the problem-center discovery method. The learning of higher order concepts generated a need for and an interest in learning the remedial arithmetic. The career education teacher can easily create problem-solving situations in which mathematics as well as grammar will be important to the student, and must be learned in order to solve the problem.

Gaming Techniques

The use of games as a teaching device can be employed as a motivational device as well as a teaching technique. Cohen (1970) used a consumer game, and found that the student attendance record went up, and student requests to come in early to play the game were more frequent. In addition, the experimental group exhibited significantly more knowledge of the concepts involved in the game than did the control group.

Harry (1969) suggested a procedure for selecting and using games and other simulation devices in instruction. The procedures suggested include (1) the evaluation of the game in light of the abilities and interests of the students, (2) preparing the student to play the game, (3) introducing the students to the major concepts or problems, (4) playing the game, and (5) discussing the experiences in terms of the real world.

Roberts and Keahey (1970) proposed the use of games in a systems approach to and counseling in an attempt to help students understand the personality

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of the environmental systems in relation to their own personality. Games for

the various levels of decision-making were suggested.

Additional Techniques

Many other techniques have been successfully used by teachers of the dis-

advantaged. In addition to those described thus far, others include:

1. Provide a sensory-rich classroom to arouse interest,
   stimulate thinking, and provoke questions by having
   a variety of thing to see, touch, hear, smell, and
   taste (Henderson, et al., 1966). Let the student
   experience his learning in a very direct way.

2. Provide an opportunity to verbalize in all activities
   (Henderson, et al., 1966). Talking about a topic,
   especially one in which the student has experienced
   success often increases interest and motivation.

3. Provide concrete experiences in which the student is
   physically involved. Such activities seem to be the
   most meaningful, while the vicarious experience has a
   limited value (Henderson, et al., 1966). Disadvantaged
   students expecially profit from tangible, concrete
   activities. They are often present-oriented rather than
   future-oriented, and can profit from concrete experiences.

4. Take students on field trips relating to classroom
   instruction. Such experiences stimulate interest,
   motivation, self-expression, and interchange of ideas
   (Henderson, et al., 1966). In addition, they provide
   the enrichment so often lacking in the lives of disad-
   vantaged students, and may open to them many possibilities
   heretofore unknown.

5. Provide "catch-up work for students who have failed to master
   fundamentals from an earlier grade. These materials should·
   be of a different nature than those with which they are
   familiar and have failed (Henderson, et al., 1966). Many
   times the career education teacher can provide academic
   instruction through the use of a vocational topie. The
   students can then see the relevance of the academic skills,
   and probably be more motivated to master them.

6. Use mathematical problems from a real situation (Henderson,
   et al., 1966). For example, give students a problem concerning
   the construction of a house and let them figure out materials
   needed, costs, etc.

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7. Teach subjects that are related to the students' current
interests, and are a meaningful part of their experien-
tial backgrounds. The sharing of student experiences
increases interest in the subject, and enhances students'
self-concepts as they share their experiences with the
class.

8. Develop a routine and order so that students will be aware
of existing patterns of action, and sense a sequence and or-
ganization of class activities (Henderson, et al., 1966).
A familiar situation, where students know what to expect,
will give them a sense of security so that they can feel
safe to explore new areas and new interests.

9. Use a camera to stimulate interest and discussion. Impromptu
photos of individuals involved in special activities or field
trips may be posted on a bulletin board. The students will
then probably develop a better self-concept, and a feeling
of being a worthy part of a group (Henderson, et al., 1966).

10. Help students develop positive feelings about themselves by
allowing their creative work to be exhibited to other
students (Henderson, et al., 1966). Value the ideas of the
student, and reward originality. Let students know their
ideas are good, and encourage them to think for themselves.

11. Use programmed learning material related to the individual
student's culture if at all possible (Henderson, et al., 1966).
Programmed learning in general is motivating to many students
because of its immediate feedback feature. Kight and
Sassenrath (1966) used programmed instruction to study the
relationship of achievement motivation, anxiety, and teaching
method. Programmed instruction appeared to work best with
students with high achievement motivation or high test anxiety.
These students made fewer errors, and remembered the materials
better than did students with low achievement motivation and
low test anxiety. The authors suggest that students with
high achievement motivation profit from the immediate knowledge
of results provided in programmed instruction.

12. Provide a variety of learning activities; e.g., films,
audio-visual aids, guest speakers, and other activities
that will contribute to the individual student's learn-
ing (National Civil Service League, 1970). Invite
students to explore these materials individually.

13. Help the students discover sub-goals that will assist them
in achieving their long-term goals (National Civil Service
League, 1970). Encourage students to feel that they are
important and are worthy of the teacher's concern about
reaching their goals.

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14. Divide subject matter into units from one-half to two hours in length (Denny and Anderson, 1969). Do not spend so much time on a topic that students become bored. On the other hand, if interest is high, do not force students to change topics; rather allow them in-depth exploration.

15. Allow students to make their own choices as to what materials they will study on a given topic (Denny and Anderson, 1969). Provide as many resources as possible, and encourage students to bring in and share relevant materials.

16. Praise students for attending class and allow them to keep their own attendance records. Attention should be placed on days present rather than days absent (Denny and Anderson, 1969). Accent the positive as much as possible.

17. Use small groups to work on a problem of specific interest to a group of students (Denny and Anderson, 1969). Research indicates that a small group of students working together will stimulate each other, and maintain a higher level of motivation than a student working alone.

18. Accept the student as being worthy regardless of personal appearance, manner of dress, or personality characteristics (Denny and Anderson, 1969). Stress to the student that it is who he is, rather than how he looks that counts. Enhance his self-concept whenever possible.

19. Space learning activities over a reasonable length of time rather than trying to cram students full of information and facts in a short time. Research indicates that spaced learning encourages and sustains a high level of motivation (Hamachek, 1968). New tasks should be introduced in small quantities with short initial learning sessions. Athletic coaches use this approach frequently; they begin with short practice and gradually increase. Career education teachers can likewise use this motivational technique. The student can master one skill, and then build upon it.

20. Provide knowledge of results, or feedback, to students to maintain motivation. Immediate, meaningful, specific knowledge of results, besides providing the information necessary to improvement of performance, has the advantage that awareness of progress serves as an incentive toward increased effort.

IV. SUMMARY, CONCLUSION, RECOMMENDATIONS
AND IMPLICATIONS

Summary

The teacher is the key person in the implementation phase of a
career education program designed to meet the needs of disadvantaged
children, youth, and adults. The overall structure of a program may
be changed as needed to allow the teacher more flexibility, but the
development of the teaching procedures and readiness to learn within
an individual student is the responsibility of the teacher. The
success of any career education program for the disadvantaged is
dependent upon the success of the teacher. This responsibility points
out the need for a clear understanding of the basic needs and motivators
of students, and disadvantaged students specifically.

An understanding of the basic human needs described in Section I
and the basic concepts of motivation presented in Section II should be
of assistance to the teacher in understanding and applying the techniques
of motivation to disadvantaged students as presented in Section III.
Each technique, if successful, must meet one or more needs of the
individual. Hence the teacher must be receptive to feedback cues from
the student as to how the motivational stimulus has affected him. Since
each individual will respond to a different set of motivating stimuli,
it is important to include many techniques in teaching disadvantaged
students. Only a sample of these techniques is offered here.

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Conclusions

Conclusions that could be drawn from a review of the literature on the motivation of the disadvantaged are numerous. Only those that appear to be the most salient are reported here. These conclusions include:

1. Much research has been done on the specific aspects of motivation and motivational techniques applied to the disadvantaged student. Additional efforts need to be expended in formulating these motivational techniques into teaching procedures.

2. A large percentage of the research on the motivation of the disadvantaged is directed toward ascertaining the global self-concept of the disadvantaged student. The resulting information, which indicates that disadvantaged students have a high self-concept, probably does not tell the whole story of the nature of the self-concept of disadvantaged students in relation to the school, and more specifically, to occupational aspirations.

3. Changing the locus of control of reinforcement from external to internal appears to be a primary objective of career educators of the disadvantaged. Students must feel they have some effect on the reinforcement they receive before they will attempt to influence that reinforcement.

4. The relatively high occupational aspirations held by disadvantaged students offers the opportunity for the teacher to assist the student in developing goals that will enable him to achieve these goals, and thus provide motivation to learn academic as well as occupational skills.

5. The development of sub-goals to achieve a long-range aspiration is more effective in motivating disadvantaged students than are long-range goals.

6. A major goal of any motivational technique or program for the disadvantaged should be to enhance the person's academic self-concept

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and improve his chances for becoming educationally self-actualizing.

7. Short term experimental programs probably will not be very effective in changing the disadvantaged student's self-concept or in assisting him to become more self-actualizing. Such personality deficits can only be overcome after a prolonger period of success and repeated reinforcement. An individual's feeling about himself does not change as fast as his performance.

8. Opportunities for students to succeed must be provided in any motivational technique for the disadvantaged. A backlog of success encourages additional attempts to succeed, and often to attempt more difficult tasks.

9. Feedback concerning how well the student is doing can play a vital role in motivating disadvantaged students to learn.

10. The reward system of the typical classroom teacher often has not been appropriate to motivate the disadvantaged student. Rewards that are meaningful to the student should be used.

11. Self-determination of goals, both short- and long term, is an essential aspect of motivating the disadvantaged student as well as developing his self-concept as a worthy person and assisting him in becoming more self-actualizing.

12. The creativity of disadvantaged students which has typically been suppressed in the classroom offers distinct possibilities for the motivation and success of the disadvantaged student. Recognition of creative work may frequently lead to success in other academic areas.

Recommendations

The review of research on motivating disadvantaged students, including the research compiled by researchers in vocational education

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as well as the academic areas of secondary education, elementary education, and preschool education indicates that much has been learned about the types of programs and stimuli that motivate disadvantaged students to learn. The review precipitated many unanswered questions in relation to the motivation of disadvantaged students in career education courses. Immediate needs requiring attention include:

1. Additional information should be sought to clarify the occupational and educational self-concepts of disadvantaged students. Research should be conducted to ascertain the effect of career education programs on their educational and occupational self-concepts.

2. Research should be conducted to determine the effect of various career education programs for the disadvantaged on the locus of control of reinforcement.

3. A study of the interaction effect of career goal-setting and locus of control of reinforcement should be undertaken to determine the importance of both constructs on the motivation of disadvantaged students.

4. Research should be conducted to determine the effect of various career education programs and models on the self-actualization of the disadvantaged student.

5. A developmental study of the integration of knowledge about motivation of the disadvantaged into current pedagogy and the determination of motivational techniques appropriate and inappropriate for disadvantaged students should be undertaken.

6. A study should be conducted to determine the relative effect of material incentives as compared with other types of reinforcers on the acquisition of skills needed in particular career areas.

7. A research study to determine whether or not goal-setting training

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increases or decreases the educational and occupational aspirations of

.disadvantaged students should be conducted. In this case, a decrease

in aspiration could be toward a more realistic and achievable goal, and

thus bring about a decrease in frustration.

8. Strategies for motivating students should be developed in line

with the various theories of motivation. Currently, motivational

techniques abound, but few are systematically linked to theory.

9. Systematic evaluation of motivational techniques should be

undertaken to determine which techniques are appropriate for disadvantaged

students in various courses and situations. A format for such a

systematic evaluation appears in Figure 1. The teacher can try various

techniques and determine if they work in a particular situation, and

can keep track of his efforts.

FIGURE I

EVALUATION OF MOTIVATIONAL TECHNIQUES

Type of student and situation / Motivational Technique	Disadv.* Student Formal Class	Disadv.* Student Lab or Shop	Disadv.* Student Informal Sit.-Small Group	Disadv.* Student Work Experience	Disadv.* Student Individual Learning Situation	Disadv.* Student Independent Study	Disadv.* Student Project
1. Sensory-rich environment							
2. Opportunity to verbalize							
3. Concrete experiences							
4. Remedial help							
5. Student interests							
6. Value creating expression							
7. Programmed instruction							
8. Variety of learning activities							
9. Goal-setting							
10. Student choices							
11. Accentuate positive							
12. Small group work							
13. Feedback & knowledge of facts							
14. Man together							
15. Student Responsibility							

*These may be repeated with advantaged student.

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Implications

Many implications could be drawn from a review of literature such as presented here. Readers are encouraged to draw implications for themselves relative to their situation. Following is a list of nine implications in the form of suggestions and cautions for the teacher seeking motivational techniques for disadvantaged as well as advantaged students. These implications would hold for career educators as well as preschool teachers.

1. Remember the list of motivational techniques is not intended to be exhaustive. Possibilities for motivating students are infinite.

2. Know each student as an individual. What works for one student may not work for another, and what works for one student in a specific situation may not work for that same student in another situation.

3. Be flexible. Last year's technique may not work on this year's classes.

4. Consider the implications of your actions on the student's self-concept.

5. Determine the value of a reward to a student before you use it.

6. Help the student realize his actions make a difference.

7. Be persistent. Keep trying to reach the "unreachable" student.

8. Be aware of the student's needs, and build upon them in your class.

9. Help the student feel valued as a person through recognition and successful experiences.

The techniques listed should not be used as recipes for successfully motivating students. Rather they are merely suggestions which should spur your creativity.

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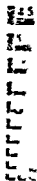
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