Three of the variables which counselors need to attend to in helping disadvantaged youth to consider occupations such as engineering are: (1) knowledge of opportunities; (2) knowledge of self; and (3) procedures related to entry. With regard to knowledge of opportunities, it is suggested that counselors' energies would be better spent in supporting the establishment and maintenance of computerized retrieval systems in agencies such as the Employment Service. With regard to knowledge of self, it is suggested that clients be given an adequate opportunity to think through their aspirations and anticipations of satisfaction in addition to considering their aptitudes and interests. Finally, the relationship between intelligence and achievement needs to be re-examined since attributes other than intelligence are associated with achievement. School counselors should understand their clients well enough to be able to explain to admissions officers which of the student's attributes are his indicators of success. (TA)
COUNSELING THE DISADVANTAGED ABOUT ENGINEERING AND RELATED TECHNOLOGY

A COUNSELOR EDUCATOR'S VIEW

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There are many variables which counselors need to attend to in helping disadvantaged youth to consider occupations such as engineering. Today's brief comments will address three of those considerations: Knowledge of opportunities, knowledge of self, and procedures related to entry.

Knowledge of Opportunities

While it is important that counselors guard against misleading clients with inaccurate information, the combination of exploding informational resources and fantastically sophisticated hardware made it clear that keeping abreast of specific and detailed information does not represent an efficient use of counselors' time. Their energies would be better spent by lending support to the establishment and maintenance of computerized retrieval systems in agencies such as the Employment Service, thereby making accurate information available at the touch of a button.

Knowledge of Self

It seems reasonable to assume that for this audience there is no need to dwell on the notions usually encompassed in a rubric such as self-knowledge. There are, however, a couple of
aspects of self-awareness that seldom receive more than passing attention in counseling. It may be profitable to comment on them.

Presumably, counselors usually do a reasonably effective job in helping clients to consider aptitudes and interests when thinking about occupational alternatives. Less often do clients have adequate chance to think through their own aspirations and anticipations of satisfaction.

Although relatively little is known about how disadvantaged youth actually proceed in establishing and implementing their vocational aspirations, counselors tend to respond to the expression of vocational aspiration as if it were the logical outcome of having progressed through the stages explicated in the usual vocational development models. If the expressed aspiration did not in fact arise in the fashion described, then proceeding as if it had is likely to mislead the client. An informal survey conducted by the writer (Bingham, 1967) can illustrate the problem. Among 50 black young men in a residential training program it was found that those who chose to enter food service occupations did so because they expected that they could find jobs without facing discriminatory practices, and those who avoided food services did so because they wanted to avoid stereotyped jobs. In no case was there evidence that the individual had considered his own abilities, etc. in relation to job requirements. Counselors need to know which personal attributes
an individual is attempting to implement, and they need to help clients find suitable ways to be successful implementers.

Clinical experience suggests that notions of aspiration are very often mixed up with notions of status, and as a result notions of satisfaction are also mixed up with notions of status. Consequently clients, especially unsophisticated ones, appear to anticipate job satisfaction as a function of the occupational level to which they aspire. Unfortunately, the behavior of counselors often seems to reinforce such perceptions. This set of circumstances may be particularly unfortunate with respect to technological occupations. Clearly, there are many more opportunities available in technical jobs that require relatively lower levels of preparation than there are in the more professional and scientific jobs which require higher levels of preparation. Thus, a person who is really seeking to implement attributes related to high levels of mechanical activity may be seduced into trying to enter occupations which offer only limited opportunities for such implementation solely because either he or his counselor has been misled by the apparently "satisfying" high-status professional job title.

Entry Procedures

For the most part, counselors deal with clients at the point of entry into training institutions rather than entry into jobs. Traditionally, considerable weight has been placed on intelligence tests as a part of the admissions procedure. Even
though intelligence test scores have been demonstrated to be associated with achievement, (e.g. Dyer, 1968), a number of questions suggest that the relationship between intelligence and achievement needs to be re-examined, especially where populations not adequately represented in the standardization and norming are concerned. Although minority groups tend to score low on measures of intelligence, Jensen (Munday, 1968) found many of them to have high intelligence in nonschool behaviors. The relationship between such nonschool behaviors and later success has not been studied. But academic and nonacademic achievements have been found to be unrelated (Holland & Richards, 1965). Even where intelligence is highly associated with success, it is moreso with success in training programs than with success on the job. In addition, it is generally acknowledged that given the minimum essential of intelligence for success, additional increments of intelligence are not related to differential levels of success. One problem in this connection is that the minimum required for success is usually unknown. And Hoyt (Munday, 1968) found that college grades are not related to later adult achievement.

Beyond the fact that the role of intelligence measurement needs to be reconsidered, it is clear that attributes other than intelligence are also associated with achievement. Much more effort than has been typical needs to be directed to seeking a fuller understanding of what those attributes are, how they can
be assessed, and how they can be nurtured. School counselors need to understand their clients well enough to be able to tell admissions officers that a particular student can succeed in spite of apparent deficiencies, and they must be prepared to explain which of the student's attributes are the indicators of success.

Finally, it is primarily the fault of counselor educators that counselors are not already better prepared to make predictions in these terms.
References

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