THE NATURE AND EXTENT OF DIVERSITY IN CHARACTERISTICS OF STUDENTS WITHIN AND AMONG THE VARIOUS CAMPUSES OF INDIANA UNIVERSITY WERE INVESTIGATED. THREE HUNDRED AND EIGHTY-ONE STUDENTS, SELECTED RANDOMLY FROM FULL-TIME FRESHMAN AND SOPHOMORE CLASSES ON EACH CAMPUS, WERE COMPARED BY STATISTICAL ANALYSES OF PERSONAL DATA AND SCORES FOR THRE SUBSCALES OF (1) THE SCHOLASTIC APTITUDE TEST, (2) THE OPINION, ATTITUDE, AND INTEREST SURVEY, AND (3) THE COLLEGE AND UNIVERSITY ENVIRONMENT SCALES. STUDENTS WHO VARIED AMONG LEVELS OF SCHOLASTIC APTITUDE ALSO DIFFERED IN THEIR PERSONAL ATTRIBUTES AS WELL AS IN THEIR PERCEPTION OF ENVIRONMENTAL STRESS. LOW-APTITUDE STUDENTS EXHIBITED LESS INDEPENDENT, REFLECTIVE, AND RISK-TAKING RESPONSES. ASSUMING THAT THIS BEHAVIOR PATTERN SHOULD BE MODIFIED, THE AUTHOR SUGGESTS THAT (1) USING ASSIGNMENTS, STAFFING, AND PROGRAMING BE MADE IN LEARNING TERMS, (2) STUDENT ACTIVITIES ON CAMPUS BE ASSURED IN TERMS OF THEIR CONTRIBUTION TO THE LEARNING CONCERNS OF STUDENTS, (3) CONSIDERATION BE GIVEN TO THE "UNGRADED COLLEGE" IN ORDER TO ACCOUNT FOR DIFFERENCES AMONG STUDENTS, (4) VARYING ORIENTATION PROGRAMS BE INSTITUTED, (5) LOW-APTITUDE STUDENTS CONSIDER A REGIONAL CAMPUS, AND (6) COUNSELING SERVICES BE LINKED TO INDIVIDUAL DIFFERENCES AMONG STUDENTS. THIS SPEECH WAS PRESENTED AT THE AMERICAN PERSONNEL AND GUIDANCE ASSOCIATION CONVENTION (DALLAS, MARCH 22, 1967).
The rapid expansion in the demand for post-secondary educational experiences and opportunities during the past two decades has tended to foster serious consideration of the pattern of higher education across the country. The issue confronting educational leaders seemed to have changed from "who will go to college" to "who will go where for what." This change in the focal issue precipitated research which was designed to identify the multiformity of American higher education. Basically, the concern of these research efforts was to determine if significant differences existed within and among institutions on the basis of characteristics other than such attributes as geographic location, form of control, and level of program offered.

The early research efforts were directed toward determining what impact the institution had on the student. Holland, during the fifties, called into contention this "institutional hypothesis." Holland contended that the college student and his salient attributes may be more properly the focus of attention. The majority of such research efforts during the past decade have agreed basically with Holland, McConnell, Pace, Stern, Thistlewaite, and Webster. As a result, the diversity of American higher education has become nearly synonymous with the diversity of characteristics of the college students who are the inhabitants of our campuses.

There is not time, nor is it within the province of the purposes of the panel this afternoon, to review the results of the research which has focused on the differences within and among college students. However, a few general conclusions might be formulated. The results of these studies tend to indicate
a wide diversity among student populations and these variances appear to be more pronounced among campuses than within any single institution. The vast majority of these studies have been descriptive in nature. A review of the literature regarding these studies will indicate that few, if any, of the research efforts in the area of student characteristics have had a focal concern with a clearly defined dependent variable. This lack of attention to any dependent variable seems to be related to the concerns of our discussion today.

A purpose of this panel is to attempt to seek out the implications of data that have resulted, or will result, from research on the characteristics of students. Any effort to tease out such implications appears to be tantamount to the nemesis of all research; i.e., raising the question of "so what." In essence, we seem to be asking, and are being asked, how we can implement knowledge of the diversity of the characteristics of college students in order to make more effective the educational programs of our institutions.

There appears to be a frame of reference which may facilitate the consideration of the implications of the variances among students for our institutions. I feel that this referent may be helpful in providing guidelines for construing appropriate answers for the questions of "so what."

The frame of reference is to perceive the goals of an educational institution as being inextricably linked to the concept of modification of behavior. I am suggesting that if the goals of institutions were evaluated critically, few, if any, would indicate an objective of the status quo for the students. The criterion of success in most institutions tends to be stated in terms of change within the student. While the perception of college and university goals as being directly related to behavior modification may not be new, such a referent does afford us the opportunity to discuss learning problems of the student (or students) and to make the validity of curricula, co-curricula, or teaching concerns moot issues. Central to the consideration of learning
problems tends to be the concern with individual differences within and among persons. Therefore, any discussion of the diversity of student attributes seems to be well within the province of individual differences. Discussion of the implications of this student diversity appears to be related easily to seeking out what types of educational programs may be effective in the modification of the behavior of these students in light of our knowledge of the differences within or among individual and/or groups of students.

This afternoon I would like to use my own research as an example and attempt to illustrate the extrapolation of the results for specific educational programming.

The purpose of my investigation was to seek out the nature and extent of the diversity in characteristics of students within and among the various campuses of state universities. The study was delimited to full-time freshmen and sophomore students enrolled on five regional campuses and the parent campus of Indiana University.

The problem investigated focused on the multiformity of the research scholastic aptitude and personality characteristics of students who were enrolled on the six campuses and the dominant environmental attributes of the six campuses as perceived by these students.

The total obtained student sample was 381 students which consisted of six student sub-groups were selected randomly from the full-time freshmen and sophomore classes on each campus.

The comparison of students and campuses was based upon the statistical analyses of personal data of the students and scores for the subscales of the Scholastic Aptitude Test (SAT), Opinion, Attitude, and Interest Survey (OAIS), and the College and University Environment Scales (CUES).

Some of the major finding resulting from the study were as follows:
Students were found to vary significantly on the basis of the occupational and educational level of their parents. The employment status of the student was found to be a discriminating factor among the various subgroups.

There were no significant differences found among students of the various campuses in terms of scholastic aptitude. However, students of varying levels of scholastic aptitude were found to vary significantly with regard to personality characteristics as well as their perception of the dominant attributes of their respective campuses.

There were significant differences found among students on the basis of measured personality characteristics.

Significant differences were found in terms of the dominant attributes of the campuses as perceived by the students who were enrolled on the campuses regardless of the level of scholastic aptitude.

In summary, the results of the investigation indicated that students enrolled on the regional and main campuses of Indiana University, while not seeming to vary significantly with respect to scholastic aptitude, tended to vary significantly in terms of personality characteristics. Also, the regional and parent campuses of the University appeared to be significantly different on the basis of their dominant educational attributes as perceived by the students enrolled on these campuses.

This brief sketch of my research tends to follow the general outline of nearly all of the studies in the area of the diversity of student characteristics. The results of this study tended to indicate, and describe the variances among students. The next problem appears to be how to make use of these data in planning educational programs.

Specifically, a section of my study attempted to discern if students who varied among levels of scholastic aptitude also differed in their perception of the environmental stress of the campus. The students were divided into three levels -- high, middle, and low -- on the basis of their scores on the Scholastic
Aptitude Test. Two scales of the CUES -- Propriety and Scholarship -- tended to discriminate the two upper levels of scholastic aptitude from the low level.

The low aptitude student tended to perceive campus environments emphasizing group standards, and general passive behavior with little stress for independent, aggressive, and risk taking behavior more frequently than the middle or high aptitude student.

The low aptitude student also tended to perceive campus environments as emphasizing high academic achievement in a competitive atmosphere with others more frequently than the high or middle aptitude student.

The low aptitude students were found to be the least likely to exhibit independent, assertive, and risk-taking behavior whereas the high aptitude students tended to be most likely to manifest such behavior.

Students at Indiana University at the time of my study appeared to differ with regard to these attributes. So what? I would urge that the visibility of answers may be limited unless we utilize some pervasive perspective and I am submitting that the perspective of behavior modification will tend to enhance the visibility of implications.

Using this behavioral perspective and the finding that students who varied among levels of scholastic aptitude also differed in their personal attributes as well as perception of environmental stress as illustrative material, I would like to review some of typical educational programming found on most campuses.

The knowledge that the low aptitude student may be the least likely to show independent, reflective, risk-taking responses appears to present a very specific goal. (Assuming that this becomes a learning hinderance) The goal is to increase the number of these responses; i.e., modify this behavior pattern for this student. (This specificity of problem definition and educational goal for this student tends to be a far cry from the global and general goals held for all students)
Housing: The perception of housing assignments, staffing, and programming tends to be somewhat different when the concern is placed in learning terms. Because the concern of the low aptitude student is stated in learning terms, Bandura's (2) modeling concepts may be helpful.

For example, the housing assignment may be made on the basis of finding a roommate which exhibited the desired behavior thereby serving as a means of facilitating the low aptitude student a model from whom he may learn new responses.

The staff of the living unit would perceive the concern as a learning problem thereby providing a consistent reinforcement pattern to the new responses as these are exhibited. A problem that appears frequently among living unit staffs is the varying perception of the problem when agreement does exist regarding the goals these are in such global and general form that few specific guidelines are available.

The programming within the living unit may be based on the learning concerns of the student as these arise. For example, the low aptitude student who may be having difficulties in asserting himself may require many different kinds of living group activity as he begins to develop these responses. "Kleenex" programming may need to be considered -- when one program has served its purpose and cannot be used again -- throw it away and begin anew.

Student Activities: The student activities on the campus could be assured in terms of their contribution to the learning concerns of the students. Using the example of the low aptitude student who may want to develop more independent behavior, the personnel responsible for the development of activities could point out which group interactions might be the most feasible in light of this learning concern. The differences among fraternities and/or sororities in terms of their potential teaching role as these might be related to becoming more independent may need to be identified.

While the continuity of programs across a campus may be greater than at the "grass roots" level, I would suggest that the "Kleenex" concept of programming could
be, and probably should be, applied at this wide level as well.

**Academic Programs:** Academic programs and class assignments tend to be based on teaching schedules rather than learning schedules. I am not sure why we tend to assume that a philosophy course should be studied in the same manner as a psychology course. Three hours of credit may be the only commonality.

I wonder about the class standings that tend to identify students as being freshmen, sophomores, etc. In order to account for the individual differences among students on the basis of rate of learning, we might give consideration to the "ungraded college."

Returning to the example of the low aptitude student and his assumed learning goal, the size of the class, teaching method employed, and learning schedule could be assessed to provide guidelines for the development of his academic and class program. For example, a psychology course may be offered by lecture, small group discussion, and video tape. Since the small group discussion may be selected, the student might benefit most from the small group discussion whereas he would have the opportunity to interact with others which may precipitate more independent and assertive behavior.

**Orientation:** Orientation programs attempt to acquaint the student with the demands and expectations of college life. It is conceivable that there would be variances among students on the basis of their understanding of college life. For example, I would expect first generation college students may be quite different from students whose parents graduated from college with respect to their comprehension of college expectations. Because of this variance among students, is it reasonable to have all students participate in the same orientation program?

One of the results of my study indicated that there was a significant difference between high and low aptitude students with regard to their perception of the environmental stress of campuses. The low aptitude student perceived a significantly greater stress on rigorous scholastic endeavor than the high
aptitude student. In terms of orientation programming, this variance may imply varying programs which would facilitate accommodation of the dominant press of the campus environment.

Theoretically, an orientation program continues throughout the academic year (few programs achieve this goal). What bases are used to move toward this goal? To answer this question, we could establish a program to identify specific learning concerns during the summer. Such a program may attempt to seek out concerns such as reading or study skills, hearing or speech, or low congruence between indicated ability and chosen educational and/or vocational field. On the basis of these results, programs could be developed which would serve to cope with the learning hinderance. For example, a reading and skills program may be offered in one living unit while group discussions on the appropriate selection of an educational or vocational area was being provided in another unit. This programming would be the orientation for the student.

Admission - Retention - Transfer: The admission - retention - transfer policies tend to be discussed by many people as being related to a student's capability of progression on a given campus. However, there seems to be a paucity of informational data available which attempts to state such policy in terms of individual learning concerns and the availability of resources for resolvement of these concerns on campuses.

My research indicated that the parent and regional campuses of Indiana University tended to differ significantly on the basis of environmental emphasis. I did not attempt to determine what effect such differences may have in terms of facilitating or hindering learning. This was beyond the scope of my study. However, if the student were to feel more comfortable with less emphasis on rigorous scholastic effort, my data appeared to indicate he might do well to consider one of the regional campuses rather than the parent campus.

I can't keep wondering how helpful an admissions counselor might be if
he were able to indicate the differences between a residential and commuting campus to the prospective, present, or transfer student and how such variances may be related to his educational development.

Counseling: The counseling services on any campus are inextricably linked to individual differences among students. This linkage tends to be given implicit, if not explicit, recognition on nearly all campuses. However, the congruence between the goals of counseling and those of the remainder of the university is not always clear.

The utilization of the learning paradigm appears to provide a bridge between the counseling services and other constituents and programs within an institution. Traditional splits such as curricula -- co-curricular concerns become moot issues since all would discuss learning concerns. As such, there would tend to be a pervasive climate of assistance in the institution which could minimize the concerned student being "in" or "out" of counseling.

The goal of self-actualization tends to mean very little to the student who desires to become more independent and assertive. A counselor may have some general goals for all students but in the actual setting, greater specificity in problem definition is demanded. Telling a student he "needs to actualize himself" provides very little in terms of specific actions. The learning paradigm does provide for this specificity.

The results of research such as mine imply interpretation to other members of the college community. If the counselor is aware of the variances among students, he may look to other educational programs within the university and suggest specific changes which would take these variances into account.
Results from studies of the diversity among students have obvious implications for working with individual students. If a low aptitude student came to the counseling center on the parent campus of Indiana University, indicating that he would like to return to a regional campus "because he felt more comfortable," I tended to perceive his concern much differently knowing the variances between the environmental emphasis on each campus.

There is not time this afternoon to explore fully all of the possible implications of the diversity of college students. In a sense the number of implications may be dependent only on your ability to formulate specific learning tasks.

I am not sure the behavior modification referent is the guideline or even a partial guideline for seeking out the implications of results of student diversity studies. I can say that the referent has been helpful to me in attempting to interpret the implications of such results. I feel that this behavioral base could be beneficial to you as you review the findings of research focusing on the differences among college students.
BIBLIOGRAPHY


