This report reviews: (1) instruments for measuring student perceptions of college; (2) inventories of college characteristics; (3) institutional self-studies; (4) instruments for measuring faculty perceptions of the college environment; and (5) studies on teaching evaluation. The report also contains the results of several surveys of faculty and student opinion undertaken at the University of Washington in Seattle. (AF)
Several instruments are available for assessing student and faculty opinion of universities. Most of these instruments result in scale scores useful in comparison among universities. Some universities, not content with merely comparing themselves with other institutions, have concentrated on unique studies of their individual schools. Evaluation of teaching is difficult, but there is much support for making student evaluation of teaching a part of the rating of teacher effectiveness.

Surveys have been conducted on the University of Washington campus of both students and faculty within the last five years. Universities can particularly benefit from the use of questionnaires to measure student attitudes in planning changes in curriculum and administrative policy.
Methods for Surveying Opinion among University Students and Faculty

The University of Washington (UW) administration, through the Office of Institutional Educational Research, may wish to investigate student and faculty attitudes concerning the University and its policies, and how they think the University should change. This report was undertaken as a review of instruments for measuring perceptions and attitudes of students and faculty, of selected studies already conducted at other schools using those instruments, and of currently available evaluations of those instruments. This project was undertaken with the hope that knowledge of student attitudes might prevent this campus from being the site of a tragedy like that at Kent State. Although small changes in this University occurred at that time as a result of listening to demands made at demonstrations, it is obvious this is a poor way to collect data. The goal of this paper is to present the kinds of measures available and alternative means for comprehensively and meaningfully assessing student-faculty opinion at this university.

Measures of Student Perceptions of College

One of the earliest instruments to measure the perceptions of college students was the College Characteristics Index (CCI) developed by Pace and Stern (1958). "The CCI, which was developed in part from Murray's (1938) need-press theory and from the later work of Stern, Stein, and Bloom (1956) on personality assessment, is based on the notion that the college environment or 'press' can be characterized in terms of its potential for reinforcing certain personality needs (Astin, 1968, p. 6)." The personality needs in Stern's (1963, rev. ed.) Activities Index were used as the framework for writing the environmental press scales for the CCI. The scales of the CCI
are based on combinations of need scores: self-assertion, audacity-timidity, intellectual interests, motivation, applied interests, orderliness, submissiveness, closeness, sensuousness, friendliness, expressiveness-constraint, and egoism-diffidence. The three hundred true-false items of the CCI describe different impressions of the campus. A norms manual is available.

Pace (1973) modified the CCI into the College and University Environment Scales or CUES which is also a measure of what students perceive about their campus. Scores tap practicality, community, awareness, propriety, and scholarship. This true-false test of 150 items takes about twenty to twenty-five minutes to complete.

One objection raised to such instruments as the CCI and CUES has been that students are biased in their appraisal of the university because their perception is selected and limited (Grande, 1970). Berdie (1968) asked three groups of students at one university to respond to CUES. Due to the variation with which they responded, he concluded that CUES could be used to generalize about parts of a university, but not to generalize about the entire university. All criticism of CUES is not adverse. Feldman and Newcomb (1969) speaking of the CCI and CUES said that such tests are valuable to institutions wanting a self-description or self-analysis, or wishing to compare their institution with another, but that more information about the reliability and validity of those tests was needed.

The College Student Questionnaire was developed by Peterson (1965) as a means of gathering and processing quantities of diverse information about college student bodies for various research purposes. The questionnaire elicits biographical and attitudinal information as well, and has two forms. For entering students the scales are (a) motivation for grades,
family social status, (c) family independence, (d) peer independence, (e) egalitarianism, (f) social conscience, and (g) cultural sophistication. The second form is to be given to students who have finished one year at the institution under study. It includes (c) through (g) of the first form as well as measures of satisfaction with faculty, administration, major, and students, study habits, and extracurricular involvement. The publisher recommends the use of local norms.

Another device for analyzing the campus through student perceptions is the Questionnaire on Student and College Characteristics (Centra, about 1968). The 135 questions ask about institutional characteristics, characteristics of the student body in general, personal activities, and family background. No identification is asked of students in order that they might feel more free to respond to all questions. It was designed with the idea of interpreting institutions to prospective students by providing a comparison of activities, student characteristics, and student self-reported behavior at various colleges. Important differences were found in the perceptions of freshmen versus the perceptions of upperclassmen; it is therefore suggested that samples be composed of second-semester juniors or first-semester seniors from the most popular fields of study.

Inventories of College Characteristics

Another tool for analyzing the campus is the Environmental Assessment Technique (EAT) developed by Astin and Holland (1961). It measures the campus environment by size of institution ($\sqrt{N}$), average intelligence of students, and proportion of students in each of six different philosophy-of-education groups (realistic, scientific, social, conventional, enterprising, and artistic). It is fairly inexpensive as it does not rely on student participation. Astin used the mean scores on the National Merit Scholarship
Qualifying Test to estimate intelligence of student bodies. He suggests that if the results of a standardized aptitude or achievement test are not available, the average high school rank might be used to estimate intelligence. The number of students in different majors can be obtained from the registrar's office or the number of degrees conferred in different areas may be used. Astin suggested that describing students on the basis of their intended occupational choice would be a more meaningful variable than the proportion in different majors. This method of assessing student bodies has been used in several studies and effectively differentiates among colleges (Sjogren, 1970). It was validated against the CCI and found to possess moderate validity and substantial reliability (Astin and Holland, 1961).

Astin (1962) has also written an instrument called the Inventory of College Activities (ICA). There are 400 items in this test which combine into 35 factors. Medians were computed by type of institution (universities, liberal arts colleges, teachers colleges, and technical colleges). Some of the factors are academic competitiveness, severity of administrative policies, conflict with regulations, student employment, familiarity with instructors, emphasis on athletics, flexibility of curriculum, and permissiveness. The ICA was given to 30,570 students who had completed their freshman year and Astin (1968) found, for example, that students at universities tended to be highly competitive and used the library infrequently, as well as that at universities grading was more severe, students were not as likely to know instructors, and there was more drinking.

Institutional Self-Studies

In some cases what is desired is not a comparison with other colleges, but a profile of a specific institution or an ordering of ideas which concern
students. Gaither, et. al. (1970) wished to measure attitude intensity at the University of Tennessee. They devised 108 questions in five scales: satisfaction with classroom, faculty, administration, and the University of Tennessee, as well as level of morale. Results of the survey were analyzed for blacks, whites, and foreign students. It was found that the three groups differed considerably in estimating relative importance of events such as the cancellation of Dick Gregory's speech or customs such as singing "Dixie." The study resulted in ranking of issues, customs, and areas deserving administrative attention. Because this questionnaire was devised at a particular university for that university, and because preliminary interviews were conducted, issues with which students were deeply concerned were known. It was possible to use recent local and national issues and concentrate on intensity of attitude.

Other university self-studies include those by committees at Stanford and the University of California at Berkeley studying all phases of school environment (Stanford Steering Committee, 1969, and Muscatine, 1963). These committees studied and made recommendations on improvement of teaching, research, rating of teaching, graduate education, etc. In order to improve teaching, both committees recommended that when considering a candidate for promotion, evaluations of his teaching be considered. The Stanford committee said that an agency of the student body should devise, produce, and distribute a systematic evaluation of courses, while the committee at Berkeley said a faculty committee should administer an experimental student evaluation of all undergraduate courses to be sent directly to individual faculty members as the basis for later faculty consideration of a permanent system of student evaluation of courses. The committee at Stanford further
recommended prize fellowships for excellence in teaching, and the assignment of junior faculty members to classes in their special areas and of senior faculty members to general, introductory classes. It was agreed that research applicable to modern problems and written in an interesting and easily understandable style is the highest goal. Teaching, while important, should not be allowed to negate the importance of such research. It was felt that the best teachers were those who were actively engaged in research.

Both committees studied their graduate schools. Stanford's committee recommended that the University leave the foreign language requirement to the discretion of the department. At Berkeley the recommendation was to allow the departments wide latitude on this requirement. Both committees recommended using graduate students as teaching assistants; Berkeley recommended giving credit for this teaching and Stanford stressed that it be supervised, evaluated, and done at all levels.

The committees urged that self-examination not cease with the final report of the committee. Stanford recommended that this spirit of self-examination be sustained by creating a standing committee of the faculty senate with student members to identify problems and see that they receive attention. Berkeley's committee recommended establishing a board to stimulate and promote experimentation and innovation in all sectors of the campus.

Faculty Descriptions

The reputation of an educational institution is determined only in part by student achievement. The effectiveness of the faculty is also important. One method of evaluating faculty members is based on number of publications. Clark (1961) researched the correlation between number of publications and eminence accorded individuals by their colleagues. The results of his survey
showed that some people published widely but were not highly esteemed, while others not so often published were more highly regarded.

The Institutional Functioning Inventory (IFI) was developed to measure the perceptions faculty and administrators have of their colleges (Peterson, 1970). It can also be given to students and the three groups are thus easily compared. There are two parts to the IFI. The first part is based on facts and may be answered yes, no, or don't know. The second part calls for an opinion and can be answered in terms of agreement on a four-point scale. There are eleven 12-item scales. The authors believe the 132 items can be completed in about twenty minutes. The eleven scales are intellectual-aesthetic extracurriculum, freedom, human diversity, concern for improvement of society, concern for undergraduate learning, democratic governance, meeting local needs, self-study and planning, concern for advancing knowledge, concern for innovation, and institutional esprit. These dimensions are concepts by which a college might seek to justify itself in the eyes of the taxpayers or other concerned groups. The results of the IFI have been correlated with CUES, published institutional data, and a national study of student protest (Centra, et. al., 1970). Most of the scales of the IFI were found to correlate in expected ways with these criteria.

Evaluation of Teaching

Evaluation of research may be difficult for administrators, but evaluation of teaching is even harder. Teachers themselves cannot agree on a method for evaluation. Brogan (1968) says evaluation of teaching is likely to be subjective and warns against using only the opinions of "immature adolescents." He suggests that evaluation of teaching be based on a systematic sampling of students, opinions of colleagues, alumni, and graduate
schools. Hieley (1968) argues that there is no agreement over what constitutes a good teacher, that there are not any extra teachers, and that adverse criticism might decrease a teacher's self-confidence and therefore his performance. Slobin and Nichols (1969) say that student rating of teaching has commonly met opposition and hostility from faculty and yet, after a few years experience, most faculties praise it. As examples of sophisticated programs, they cite the University of Washington and the University of Michigan, although Washington's voluntary basis for ratings was mentioned as an obvious problem. As instructors who most need to be rated may not request the service on a voluntary basis, some departments are making ratings mandatory. This varies with departments; in some departments ratings must be presented in order to qualify a person for a promotion, but in other departments teachers must be rated each quarter.

Surveys of student opinion of faculty effectiveness have been conducted continuously since 1925 at the University of Washington. The student rating form has ten items on a five-point scale and two open-ended questions. The survey takes about twenty minutes to complete. Although the forms are anonymous, the results are not made available to the instructor until after grades are filed with the registrar. The Director of Student Ratings reports (Jagen, 1966) that there is an informal consensus among students that instructors who request surveys need them less than those who do not request surveys.

**Surveys of Opinion at the University of Washington**

Several surveys have been taken of faculty and students within the last five years. Although usually surveys are initiated by faculty members, students took opinion polls during spring student body elections in 1969.
and 1970. The results of one poll (University of Washington Daily, 1969) showed that most respondents felt that ROTC should remain on campus, although they were almost evenly divided as to whether or not credit should be given. Voters also felt that business recruiters on campus should be willing to defend their companies in a public debate. In the 1970 polls, the issues were Brigham Young University (BYU) and withdrawal of troops from Vietnam (University of Washington Daily, 1970). The alternatives in relations with BYU were severing all ties, no change, no new contract, and severing athletic ties. Whereas opinion on the BYU issue was quite divided among the alternatives, opinion was very strongly in favor of troop withdrawal in Vietnam with 4,470 yes votes and 2,564 no votes.

Another student conducted survey was done under the leadership of Prof. Lynne Iglitzin (University of Washington, Information Services, Attitude Survey, 1970). Her Political Science 311 conducted a survey of students' political attitudes in 1970. The results of this survey of 672 students were compared with the results of a 1969 CBS survey of 723 students from 30 campuses. The most significant finding was that the majority of the students at UW was moderate. Even those who were radical or conservative were more moderate than comparable groups of students nationally, but the majority of students was critical of the status quo and wanted fundamental changes in society.

University of Washington students wanted changes in big business, universities, labor unions, and political parties. Only one-third of the UW students surveyed would welcome more emphasis on law and order, while 60% of the national sample would. While only 6% of the UW sample would say that sit-ins are never justified, 35% said that blockades are never justified,
and 57% said destruction of property is never justified. While 70% of the national group said police should always protect property, less than half of the UW group agreed. Eighty percent of the UW group felt that legitimate channels for reform must be exhausted before any attempts are made at disruption, and they rejected the idea that "to bring about changes in society, disruption is preferable to discussion."

After determining the views of the moderate majority, the class investigated the attitudes of students with radical and conservative views. About ten percent of UW students interviewed were classified by the class as radical. These radical students rejected traditional respect for authority, law and order, religion and patriotism, but only half would completely destroy the fundamental institutions of society. Only one-third agreed that "the use of violence to achieve change is a necessity."

UW students who were labeled "conservatives" wished to see the fundamental institutions remain as they are or to undergo moderate changes. Fifty percent of "conservatives" wanted changes in trade and labor unions, 45% wanted changes in the military, and 25% wanted changes in big business. In the national sample, less than 20% wanted basic changes in any of these institutions.

Students filled out a questionnaire for American Council on Education in autumn 1966 and 1967. The results of these surveys (Morishima, 1968) showed that students entering UW received higher high school grades, had had more original works published, and planned to go further in school than entering students at other four-year public universities. Many of the questions asked such as career choice, last school attended, age, home state, religious preference, high school grade point average, major field of study,
and highest degree planned are redundant of items on application or registration forms. Questions concerning political beliefs or activity in protests were avoided in 1967. In 1963, when questions of this type were asked, the data gathered had to be destroyed as students felt it was too personal and possibly would be used for purposes other than research. They felt this way partly because name and social security number were requested as identification, and the questionnaire was distributed with registration materials. Also it was not stressed that participation in filling out the questionnaire was strictly optional.

In autumn 1969 a questionnaire was sent to advisors, and a similar questionnaire distributed to a student sample in winter 1970 (Horishima, 1970). The questionnaire concerned the advising system. It was found that while the advisors were well informed on nearly all the offices dealing with students and their problems, most students were uninformed about these offices and services. Students considered advising necessary, but few advisors agreed. Two-thirds of the advisors felt it important to help students define their educational goals, but only one-fourth of the students agreed. Advisors agreed that it was important to listen to any problems students might have, while few students felt that this was an important aspect of advising.

In spring 1965 a survey of faculty opinion was conducted by the American Association of University Professors (Wagner, 1966) with a 40% return (N = 626). Results were analyzed by department and by rank. No significant differences were found when responses were analyzed by rank, but significant differences were found between departments. The conclusions reached were that the University was going to face a serious problem in maintaining an
effective teaching relationship between faculty and students, that faculty members disapproved of large lecture classes, and that faculty should be more involved in undergraduate advising. Faculty members felt strongly that their students were better than five or ten years ago. They also agreed that although promotion was supposedly based on equal consideration of teaching and research, that research was actually given more weight. In order to evaluate teaching effectiveness, an improved version of the student rating system was advocated by 57%.

Conclusions and Recommendations

The instruments reviewed which measure student perception of college are most useful if comparing one college with another is desirable. The IFI, developed mainly to be given to faculty, can also be given to students and administrators allowing comparison between campuses and within the campus. While scale scores have the advantage of easy comparison with another campus, they are not very suggestive of specific goals. The results of a scaled test might indicate that a student body is very high on social conscience, but does not indicate if students want the administration to take a stand on abortion reform or admit more blacks.

The advantages of a questionnaire specifically designed for a campus outweigh the disadvantages, and are more numerous and striking than the advantages of instruments such as the CCI or CUES. A scientifically designed questionnaire for a specific school could be shorter, more interesting, anonymous, and get more response than presently available commercial instruments. It could be shorter because the University already knows for each student his high school grade point, last school attended, intended major, possible choice of career, and hobbies. Since a college can gather these facts
through admission blanks, a questionnaire designed solely for the use of
the college can eliminate these questions.

Since a profile of the student body concerning age, sex, class, major,
etc., can be done on information already collected by colleges, the tailor-
made device can ask enough of these questions to check for bias and eliminate
questions such as student number, social security number, or name. An anony-
rous instrument will increase confidence that responses will not be used
against a person. With fear of retaliation lessened, more students would
feel free to answer all questions. This is a big advantage as the disinter-
est of a group of people at one end of the political spectrum could render
the results of the survey meaningless, if political beliefs were a part of
the questionnaire.

Political beliefs should be part of the questionnaire. Questionnaires
such as the one that ACE devised which ask about making a dry martini and
using a sewing machine (Morishima, 1968) are wasteful of time and money.
Students do not demonstrate because they cannot make a dry martini; they
demonstrate because they feel that the university is not taking the leader-
ship it should in changing inequities in society. Students want equal rights
for all, withdrawal from Vietnam, and abortion reforms. Questionnaires
should discover the specific issues, the intensity of feeling, and what
students think the university administration could do.

One of the disadvantages of a specially designed instrument is that it
cannot always be used at other colleges. This is not a major disadvantage
at UV since such a comparison was made using the results of the ACE question-
naire. The disadvantage of the cost of designing a unique, local question-
naire is outweighed by the cost of those available which would have to be
bought in large quantities.
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