

The University of Arizona

PROCEEDINGS OF THE FACULTY SENATE

Meeting of Monday

January 18, 1965

PRESENT: Bartlett, Beattie, Blecha, Blitzer, Brewer, Carlson, Chadwick, Cockrum, Coleman, Coulter, Delaplane, Forrester, Edwin Gaines, Gillmor, Gries, Hall, Harris, Harshbarger, Harvill, Hillman, Hudson, Hull, Johnson, Kemmerer, Little, Lynn, Lyons, Martin, McMillan, Muir, Myers, Patrick, Paylore, Powell, Quinn, Rappeport, Rhodes, Roy, Siegel, Simonian, Sorensen, Stanislawski, Svob, Vavich, Wilson, Wallraff, Windsor.

ABSENT: DuVal, F.P. Gaines, Gegenheimer, Kassander, Paulsen, Picard, Voris.

AMERICAN COLLEGE TESTING PROGRAM, REPORT RE: Dr. Harvill introduced Dr. Lewis Hertz, Associate Professor of Psychology and Assistant Director of the Student Counseling Bureau, who had been invited to report to the Senate on the experience of the University of Arizona with the American College Testing Program.

Dr. Hertz reported that previous to 1963 the University had tested all new students on the campus during Orientation Week, something in excess of 3,000 enrollees each fall. For the last two years the University, instead of administering a test to all entering freshmen, has used the scores of the American College Testing Program. For students who have taken the Scholastic Aptitude Test of the College Entrance Examination Board, the scores on that test have been used in place of ACT scores. The American College Testing Program (ACT) is the established state-wide testing program in the State of Arizona. Most entering freshman students now have taken either the ACT or the SAT of the CEEB during the senior year of high school and had their scores sent to the University, and while it has been necessary to give a make-up test during Orientation Week for those who had not taken a test in high school, in September 1964 this test was given to only 210 students. About 70% of the entering students have taken the ACT and 30% the SAT of the CEEB.

Dr. Hertz explained that ACT was organized in 1955 at the State University of Iowa and tests are given throughout the United States on five set dates throughout the year. Also, make-up tests are scheduled under special circumstances at special locations, for instance, the make-up test given on our campus during Orientation Week. Four tests are given - in English, Social Studies, Natural Sciences, and Mathematics, each test forty-five minutes in length. These tests measure educational development, Dr. Hertz pointed out, rather than what might be called intelligence or ability. In other words, the tests place a premium on what has been learned in high school. The ACT is given in all the Arizona high schools. The Scholastic Aptitude Test of the College Entrance Examination Board is also given five times a year throughout the country. One of the sites of the test in Arizona is Tucson. Cost of the ACT is \$4; cost of the SAT is \$4.50.

The ACT headquarters provides a research program for the University, feeding back to the institution a wealth of statistical data about students attending the University of Arizona who have taken the ACT tests. There are 550 pages of statistics. Dr. Hertz referred to a statistical summary which had been distributed to members of the Senate as they arrived for this meeting - "Selected Statistics from the 1964 American College Testing Program Research Service Report." These were

collated from the various tables and include those that are most interesting and relevant.

He pointed out that the University as a whole could be broken down into several categories - including sex, in-state or out-of-state status, college, etc. He pointed out that one part of the report included descriptive information grouping members of the freshman class by such characteristics as described above. He said that a particularly relevant table was Table II on page 1 of the ACT report. He pointed out that the average college grade in English 1 is 3.02, where the high school grade average in English has been 2.11. Similar average grades are given for Mathematics, Social Studies, and for the Physical and Biological Sciences.

Dr. Hertz pointed out that this did not represent the entire freshman class, but only the 70% of the group who had taken the ACT. As a group, he said, the students who had taken the College Boards rather than the ACT had been better students.

Dr. Hertz explained that differences in high school grades and college grades could be interpreted in many ways. He explained that the report also included characteristics of the institution. Table V on page 3 of the ACT report shows where the University of Arizona stands compared with other types of colleges and universities throughout the country. For instance, the Arizona median score would be at the 76th percentile on junior college norms. For the group of schools giving the Ph.D. etc., the Arizona median is at the 58th percentile, putting us slightly above the national standard. The numbers in parentheses represent estimated ACT percentiles corresponding to University of Arizona median scores assuming all University of Arizona freshmen took the ACT. These amended statistics place the University of Arizona in even a more favorable position.

Dr. Hertz pointed out that the University had given the SAT of the CEEB experimentally in 1958 to all entering freshmen. Last year, he said, he had the research office of the Board compute norms for those University of Arizona students who had taken the SAT and these were vastly different from the 1958 group. The conclusion had been reached, he said, that a rather select group of our entering students now were taking the College Entrance Examination Board tests.

Statistics now show that the University of Arizona is getting a different type of student from that which came here six years ago, in 1958, he said. One reason for this is that the University now is only by special selection admitting Arizona students who graduated in the lowest quarter of their graduating classes.

Dr. Hertz pointed out that much of his report provides predictive information which is really the heart of the study. Prediction has been developed that will accurately predict over-all achievement of students in certain subject areas if adequate information has been obtained by the research service and provided to the University. This, of course, depends on what courses have been reported by the University for which prediction information is desired. Predictive information is also available, Dr. Hertz pointed out, on students in the various colleges, male versus female, and in-state versus out-of-state.

Dr. Hertz referred to certain tables in the report which indicated that for the most part women students do better than men in English; in Mathematics men do better than women; in Social Studies both groups do about the same; and in Natural Sciences the men do better. His research had indicated, Dr. Hertz pointed

out, that between out-of-state and in-state students there is little difference in educational development. Dr. Hertz emphasized that in a prediction of college success in specific courses and in predicting general college grade average, prediction can be somewhat better when both test scores and high school rank are taken into account rather than when either of these is taken separately.

Dr. Hertz emphasized that tests could be used to a greater degree not only in admissions but in course counseling, in awarding scholarships, and in selection of students for the Honors program. The ACT information can be used for sectioning students in courses, ranging all the way from Honors courses to remedial courses. A student can be denied admission to the University by our telling him that he is not likely to attain a satisfactory grade average if admitted. Such selection can be done, Dr. Hertz emphasized, before admission. Similarly tests can determine who should go into advanced placement work. They also may be used in processing applications for admission from lowest quarter students.

Dr. Hertz pointed out the particular value in admissions of information that the ACT research service can provide. Test scores can forewarn us which students will not succeed in particular courses.

Dr. Hertz called attention to Table VIII on the ACT Research Report referring particularly to the lowest quarter program. It appears that of those enrolled under the provisions of this program so far, approximately three-fourths attained sufficient academic success to remain in the University one year; less than one-half were able to finish two years; but only ten per cent were able to reach upper division in the University with any real promise of success as measured by the standing required for graduation.

By 1964 only six students who had been graduated from high school in the lowest quarter of their classes had survived to graduate from the University.

Dr. Hertz emphasized that the lowest quarter group was not a large group of students. Two hundred two had applied in 1964 and one hundred had been admitted after special counseling and testing. Not all of the one hundred actually enrolled, however.

Dr. Hertz stated that ACT is constantly adding features to its research program. For next year, the research report will include, in addition to the predictive information about English, Mathematics, Natural Sciences, and Social Studies, student profile information. This will provide information about the student's individuality, what kind of a person he is in terms of aspirations and personal background. Information will be furnished before the student arrives on campus as to what vocation the student plans to enter after college, what special role he hopes to play in life, the academic major or educational degree he seeks, the size of his home town, where he expects to live at college, what he hopes to get out of his college experience, whether he plans to seek student employment, what kind of work he does well. It will also indicate which extracurricular activities he will take part in, whether or not he will need financial assistance, and what has influenced him to select this particular institution. He will be given an opportunity to describe his record of notable and unusual accomplishment in leadership, music, drama, speech, art, writing, science. In other words, there will be a number of non-intellective, motivational variables sent to us. It will be possible automatically to separate students who have won prizes for their writing ability. The English Department might be interested in this. The Science departments would be interested in knowing whether students had won science prizes.

Dr. Hertz then turned to another report which he had had distributed to the Senate, called "Selected Follow-up Statistics of the 1958 Entering Freshman Class".

This was the entering group, he pointed out, who in 1958 had taken the Scholastic Aptitude Test of the College Entrance Examination Board.

He pointed out that students with higher scores had persisted longer in the University. The study was based on 1871 students. 1871 students had enrolled initially and had completed at least one semester. At the end of the second semester 1578 or 84% were still with us; at the end of the third semester 1289 or 69%; at the end of the fourth semester 1134 or 61%; at the end of the fifth semester 945 or 51%; and at the end of the sixth 834 or 45%. At the end of the seventh semester 676 or 36% were still with us. At the end of the eighth semester 526 or 28% were still with us.

He pointed out that the report indicated a low correlation between College Board scores and persistence in college. This study had again revealed that a combination of test score and high school rank proved a better prediction than either one separately.

Dr. Hertz referred also to Table IV of this report which showed that about 20% of the entering group had graduated by the end of four years. The total number graduated over a six-year period was 34%. In other words, over a six-year period we graduated over one-third of our students, about one fifth of these graduated at the end of the four years. Of course, this does not mean that other students did not graduate from college somewhere, since they may have transferred to other institutions.

In answer to a question from Dr. Harvill, Dr. Hertz explained that nationally about 50% of the students who begin non-selective colleges eventually graduate.

The President commented that some figures recently furnished him by the Registrar showed that the University of Arizona's retention rate has been much better in recent years than it had been previously. Dr. Hertz said a few years ago a study of the College of Liberal Arts indicated that thirty-five to forty per cent of the students were graduated in four years.

In summary Dr. Hertz said that much can be accomplished with the ACT Research Service. It can be of use in admitting students from out-of-state, in admitting state students from the lowest quarter, in sectioning students - ranging from placing them in honors sections to placing them in remedial sections. It can provide information about the motivation, aspirations, and extracurricular attainments of our students, etc.

Mr. Johnson asked in what form the non-intellective information would be received. Dr. Hertz said it could be received on punched cards.

While we will never be able to predict perfectly, the more information we receive the better the predictive job we can do, Dr. Hertz remarked. More non-intellective material should prove to be very helpful, he said.

Dr. Blitzer asked if this additional information will make it possible to a greater degree to avoid mismatching between ability and career choice. Dr. Hertz

said that the research service would feed back much information to the high schools so that the high school counselors would have more information to assist them in directing their students into particular careers and colleges that would be congenial to their interests and aptitudes.

Dr. Harvill commented that he had seen evidence at a number of institutions of an increasing lack of confidence in relying on tests for admission or other purposes. In other words, those institutions are not relying on tests as heavily as they did in the past.

President Harvill thanked Dr. Hertz for his report and for his discussion of experience with the ACT program at this University.

David L. Windsor, Secretary