

THE CORE PROGRAM AND COLLEGE ACHIEVEMENT:
P. K. YONGE GRADUATES AT THE UNIVERSITY OF FLORIDA

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The Guidance Department of the P. K. Yonge Laboratory School conducted a follow-up study of graduates beginning with the class of 1955 and ending with the class of 1959. It was hoped that such a study would contribute to a better understanding of the effectiveness of the program and curriculum of the school.

Problem

The programs and philosophy of the P. K. Yonge Laboratory School are viewed with interest by many students of education. Frequent inquiries are made by parents, students, and professional educators about the effectiveness of the programs at P. K. Yonge and, in particular, the effectiveness of the core program around which all secondary classes at P. K. Yonge are organized. Hill showed that over the years, P. K. Yonge seniors scored at or above expectations on the Florida State-Wide Twelfth-Grade Testing Program when psychological scores are compared with achievement scores in Mathematics and Science (1). However, no systematic study has been made of college achievement of P. K. Yonge graduates. Hence, the major purpose of the present study was to make a comparison between the academic achievement of P. K. Yonge graduates and graduates of other schools in the general education program of the University College at the University of Florida.

Procedure

There were 294 graduates of P. K. Yonge during the period of concern to the study, and information was received from 261 of these subjects. Efforts to contact or locate 33 of the graduates proved fruitless. The study found that 200 of the 261 respondents had made an initial entry into higher education. The subjects had entered 44 different institutions located, for the most part, in the East and Southeast. Of the 200 who had entered higher education, 128 had entered the University of Florida.

For the purposes of the present study, an ideal research situation would present a relatively large sample of P. K. Yonge graduates in a

single institution using a basic standardized testing program for all entrants. Such a situation would allow a comparison of ability and preparation as well as a comparison of achievement in higher education.

This ideal research situation seemed to be present in the form of 128 graduates who entered the University of Florida. Here we have a relatively unitary grading system and a program of Comprehensive courses required of all students. This seemed to present a rather ideal basis for comparing P. K. Yonge graduates with a total population of a single institution.

A standardized test program for comparison was available in the form of the Florida State-Wide Twelfth-Grade Testing Program which is one of the requirements for admission to the University of Florida. The program consists of a battery of five tests which are administered to all seniors in Florida high schools. The first test in this battery is the American Council on Education Psychological Examination for High School Students. This test correlates significantly with general ability and is considered to be a measure of academic aptitude.

The other four tests in the battery are subject matter achievement tests in English, Social Studies, Natural Science, and Mathematics. All of the test scores are reported as percentile ranks for the total population of Florida high school seniors in a given year. The scores on an individual test range from 00 to 99 and the range for the entire battery (obtained by adding the percentile scores on all five tests) is from 000 to 495.

Results

Comparison of Ability and Preparation

Table 1 presents the mean scores for P. K. Yonge Graduates who entered the University of Florida for each of the years 1955-1959.

The mean total scores for P. K. Yonge graduates on the Florida State-Wide Twelfth-Grade Testing Program were compared with the total distribution of the entering Freshman class at the University of Florida for each year in the study. By means of interpolation, the percentile rank of the "average" P. K. Yonge Freshman at the University of Florida was determined on the basis of data supplied by the University Examiner. For each of the years beginning with 1955 and ending with

Table 1

Mean Scores on Florida State-Wide Twelfth-Grade Testing Program for P. K. Yonge Students Who Entered the University of Florida and Percentile Ranks in Freshman Class at the University of Florida

	1955 N=27	1956 N=28	1957 N=28	1958 N=26	1959 N=19
Psychological	63.6	66.8	71.8	61.8	69.6
English	64.6	55.6	62.6	76.3	70.4
Social Science	58.2	65.3	63.6	72.6	78.3
Natural Science	68.1	69.5	76.6	70.5	71.8
Mathematics	71.8	76.8	75.0	68.3	69.3
Total	326.3	334.0	349.6	349.5	359.4
Percentile Rank in 1 UC at UF	39.9%	37.6%	42.8%	36.0%	45.4%

1959, the percentile rank of the average P. K. Yonge Freshman at the University of Florida was below the University average for the first year students. The lowest percentile rank achieved in any of the five years by P. K. Yonge graduates was 36 and the highest rank was 45.4. In other words, the P. K. Yonge graduates who entered the University of Florida in the period 1955-1959 were somewhat below average in ability and achievement as measured by the Florida State-Wide Twelfth-Grade Testing Program when compared to the total Freshman class for the same period.

The finding that P. K. Yonge graduates who entered the University of Florida between 1955 and 1959 were below average in test scores for Freshmen at the University of Florida can probably be attributed to at least two factors. First of all, a majority of P. K. Yonge graduates do enter college and the social pressures upon an individual to go to college are probably much greater than in most high schools. This means that students who are not highly promising candidates for higher education receive unusual pressures to enter college, whereas in some schools such students would receive little encouragement to enter college. Secondly, the convenient geographical proximity of the University of Florida probably encourages a wider range of P. K.

Yonge students to enter college than is true of schools located a substantial distance from Gainesville. The sheer economics of the situation for P. K. Yonge graduates invites average and below average students to enter the University of Florida. These and other factors probably account for the below average rank for P. K. Yonge graduates in the Freshman class at the University of Florida.

Comparison of Academic Achievement

It was mentioned previously that the University of Florida has a constellation of Comprehensive courses required for all students. The six Comprehensive courses, commonly called "C-courses," are listed below:

- C-1 American Institutions
- C-2 The Physical Sciences
- C-3 Reading, Speaking and Writing--Freshman English
- C-4 { C-41 Logic and Effective Thinking
- C-42 Fundamental Mathematics
- C-5 The Humanities
- C-6 Biological Sciences

Practically all students at the University of Florida register for C-1, C-3, and C-5. Appropriate advanced courses are sometimes substituted for C-2, C-41, C-42, and C-6. In general, however, the Comprehensive courses represent a kind of "common ground" for all University of Florida students and a comparison of academic achievement in the Comprehensive courses seemed to be a valid way to pursue the purposes of this study.

With the cooperation of the Registrar's Office at the University of Florida, the C-course grades for the 128 P. K. Yonge graduates of concern to this study were obtained for analysis. The total grade distributions for all students in the C-courses during 1955-1959 were also obtained. With the exception of C-41 and C-42, each of the C-courses is, in reality, two separate courses representing two semesters of work. Hence, the obtained distributions represented a total of grades awarded during the period of the study rather than representing the total numbers of individuals in the study. The results of the comparative grade distributions are presented here in Table 2.

The findings listed in Table 2 indicate that P. K. Yonge graduates achieved significantly higher grades in the C-courses than did the total

Distributions and Chi Square Analysis of Grades Received
in University of Florida Comprehensive Courses 1955-1959

Subject	Grade	P. K. Yonge Observed	P. K. Yonge Expected	Total UF Observed	Chi Square
C-1 American Institutions	A	24	14.6	1474	8.633 .10 > P > .05
	B	54	47.8	4818	
	C	93	102.0	10278	
	D	45	51.0	5139	
	E	<u>16</u>	<u>16.6</u>	<u>1677</u>	
		232	232.0	23386	
C-2 Physical Sciences	A	9	10.5	944	2.829 .70 > P > .50
	B	25	22.8	2054	
	C	54	46.5	4183	
	D	36	41.5	3739	
	E	<u>13</u>	<u>15.7</u>	<u>1411</u>	
		137	137.0	12331	
C-3 Freshman English	A	28	20.6	2005	3.468 .50 > P > .30
	B	33	36.0	3496	
	C	92	93.1	9048	
	D	48	52.9	5136	
	E	<u>29</u>	<u>27.4</u>	<u>2659</u>	
		230	230.0	22344	
C-41 Logic	A	7	7.3	750	.948 .95 > P > .90
	B	18	15.1	1559	
	C	33	36.5	3771	
	D	20	19.7	2037	
	E	<u>10</u>	<u>9.4</u>	<u>966</u>	
		88	88.0	9083	
C-42 Fundamental Mathematics	A	6	7.4	697	1.840 .80 > P > .70
	B	13	15.2	1438	
	C	33	34.0	3221	
	D	17	13.1	1240	
	E	<u>8</u>	<u>7.3</u>	<u>693</u>	
		77	77.0	9083	
C-5 Humanities	A	33	18.1	1731	15.074 .01 > P
	B	33	33.4	3183	
	C	67	82.0	7823	
	D	34	32.9	3141	
	E	<u>16</u>	<u>16.6</u>	<u>1580</u>	
		183	182.9	17458	
C-6 Biological Sciences	A	23	16.4	1478	3.623 .50 > P > .30
	B	23	22.6	2044	
	C	48	54.6	4935	
	D	29	30.7	2770	
	E	<u>26</u>	<u>24.7</u>	<u>2226</u>	
		149	149.0	13453	
Total for All C-courses 1955-1959	A	130	94.5	9079	16.165 .01 > P
	B	199	193.4	18592	
	C	420	450.1	43259	
	D	229	241.4	23202	
	E	<u>118</u>	<u>116.6</u>	<u>11212</u>	
		1096	1096.0	105344	

Total U. C. grade point average 1955 to 1959: 1.9157

P. K. U. C. grade point average 1955 to 1959: 1.9945

z-score test of difference: 2.28 Significance: .02 > P > .01

population participating in the C-courses during 1955-1959. This higher level of achievement was observed in spite of the finding that P. K. Yonge graduates ranked below average on the Florida State-Wide Twelfth-Grade Testing Program when compared to the same population (Table 1).

The P. K. Yonge graduates made 36 more A's, 6 more B's, 30 fewer C's, 12 fewer D's, and one more E than would have been expected had their Senior Placement Test scores been equal to those of all entering Freshmen. Since their scores were less, these predictions are modest. Further, excess high grades and fewer low grades, compared with expectation, tended to come in American Institutions, Freshman English, and Humanities, courses most closely related to the Core program. Excess high grades also tended to come in the Biological Sciences.

Further analysis of the grade distributions listed in Table 2 revealed that chi square values tended to be more significant for those C-courses related to the Core program, i. e., C-1 and C-5. Hence, the findings of this study seemed to lend support to the contention that the Core program is an effective approach to secondary education at P. K. Yonge.

Summary and Conclusions

This follow-up study of P. K. Yonge graduates compared the test score performance and grade achievement for 128 graduates with the same measures for the total population at the University of Florida during 1955-1959. The findings indicated that P. K. Yonge graduates ranked below average on the required ability and achievement entrance tests and yet achieved significantly higher over-all grades in the Comprehensive courses. In other words, this study presents relatively concrete evidence that P. K. Yonge graduates performed significantly better than expected on the basis of ability in the C-courses at the University of Florida.

Not all of the difference in performance revealed by the study should be attributed to the program at the Laboratory School. The families who enroll their children in the P. K. Yonge Laboratory School may well be families who deeply value education and tend to instill this valuation in their children. There may also be some advantage in general academic performance for students who attend college in their home town.

In summary, this study has objectively evaluated the academic performance and progress of a selected sample of P. K. Yonge graduates during two years of a general education program at the University of Florida. While it was recognized that many questions about the quality and effectiveness of programs at the Laboratory School were not answered by this study, some light has been shed upon the quality of academic performance of P. K. Yonge graduates at the University of Florida. This study was part of a continuing program to evaluate the quality and effectiveness of educational theory and practice as manifested in the P. K. Yonge Laboratory School.

Reference

1. Hill, T. J. "Less" math, science? Look at the record. Journal of the Florida Education Association, 33 (1958), 15.