

THE INFLUENCE OF WORKING AND STUDY HOURS UPON GRADES IN A PHARMACY SCHOOL.*

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For some years the writer has thought that the number of hours the student worked in a pharmacy influenced the grades of that student and that the more hours the student worked the higher the grades. This study was undertaken to determine if this was true. A tabulation of the four classes as to grades, working hours and available study hours is given in Table I.

TABLE I.

		Grades as Percentages.						
		65-69.	70-74.	75-79.	80-84.	85-89.	90-94.	95-100.
Freshmen			1	10	45	60	15	8
Sophomores	1	5	30	34	58	22	4	
Juniors		7	54	60	60	15	6	
Seniors		6	34	84	90	14	10	
Total	1	19	128	223	268	66	28	

		Average Working Hours.											
		0.	15.	20.	25.	30.	35.	40.	45.	50.	55.	60.	65.
Freshmen		4	1	3	1	0	8	13	7	7	3	2	0
Sophomores		6	0	4	2	1	3	5	4	3	0	1	1
Juniors		2	2	1	0	1	3	6	6	7	5	6	2
Seniors		3	0	0	1	1	2	6	7	14	3	9	0
Total		15	3	8	4	3	16	30	24	31	11	18	3

		Available Study Hours.													
		5.	6.	7.	8.	9.	10.	11.	12.	15.	20.	25.	30.	35.	40.
Freshmen		0	4	4	3	1	12	0	0	8	4	6	0	0	0
Sophomores		2	0	1	0	0	2	1	4	8	7	1	10	0	1
Juniors		6	3	5	1	2	9	0	0	8	4	2	0	0	0
Seniors		18	5	4	3	5	5	0	0	2	2	1	1	0	1
Total		26	12	14	7	8	28	1	4	26	17	10	11	0	2

Pharmacognosy was chosen as the subject for further investigation as this subject consists of both lecture and laboratory. Table II shows the grades in percentages and the working hours per week with the hours available for study. Table III summarizes these results.

TABLE II.—AVERAGES IN PHARMACOGNOSY (JUNIOR CLASS).

	0.	14-19.	20-25.	26-30.	31-35.	36-40.	41-45.	46-50.	51-55.	56-60.	61-65.	66.
Working hours	2	2	1	1	1	6	4	8	5	9	3	1
Average hours available for study	13	23	16	7	18	12	22	11	9	6	7	11
Grades	82%	91%	86%	96%	86%	88%	87%	85%	84%	81%	84%	91%

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TABLE III.—AVERAGES IN PHARMACOGNOSY FOR SCHOOL YEAR.

Grade.	Hours Worked Per Week.	Hours Per Week Available for Study.
72	58	3
74	44	18
75	47	5
76	58	3
77	48	9
77	48	21
80	0	28
78	59	14
80	65	2
81	52	11
81	58	3
81	59	11
81	60	3
81	62	7
82	50	5
82	60	6
83	56	4
84	0	15
84	52	14
84	40	10
85	50	13
85	38	9
86	23	16
86	35	18
86	37	6
87	43	32
87	51	6
87	60	7
89	38	16
89	38	16
90	14	15
90	46	5
91	19	10
91	66	11
92	42	16
92	49	7
93	40	14
93	53	7
94	41	19
95	48	16
96	30	7

From these tabulations it would seem that the student working the most hours had the best grades, unless the student was an exceptional type, and that the average student not working had in many cases the lower grades. As the students were individually interviewed after each examination (every six weeks) various additional information was obtained. It was interesting to note the occupations of the fathers. Table IV shows that thirty-six of the students had fathers who were pharmacists and that (other than fathers) the students had forty-two relatives who were pharmacists.

TABLE IV, —OCCUPATION OF FATHERS.

	Freshmen.	Sophomores.	Juniors.	Seniors.	Total
Pharmacist	11	7	6	12	36
Laborer	1	5	9	4	19
Mechanic	3	1	1	4	9
Merchant	0	4	1	11	16
Clerk	1	3	4	0	8
Foreman	3	0	3	2	8
Salesman	4	2	1	0	7
Carpenter	0	1	3	2	6
Engineer	2	0	3	1	6
Contractor	0	1	3	1	5
Farmer	0	2	0	2	4
Junk dealer	1	2	1	0	4
Glassworker	2	0	1	0	3
Grocer	3	0	0	0	3
Railroader	1	0	2	0	3
Butcher	2	0	0	0	2
Minister	1	0	0	1	2
Priest	0	0	1	1	2
Painter	0	1	1	0	2
Accountant	0	1	0	0	1
Bricklayer	0	1	0	0	1
Chemist	1	0	0	0	1
China decorator	1	0	0	0	1
Cigar manufacturer	0	0	0	1	1
Dairyman	1	0	0	0	1
Insurance agent	0	0	1	0	1
Foundryman	0	1	0	0	1
Landlord	0	0	0	1	1
Rancher	1	0	0	0	1
Realtor	0	0	0	1	1
Shoe repairman	1	0	0	0	1
Steel worker	0	0	0	1	1
Tinner	0	0	1	0	1
Traffic manager	0	0	0	1	1
Truck driver	1	0	0	0	1

Relatives in the Drug Business.

Brothers	1	1	3	10	15
Sisters	1	0	0	2	3
Cousins	2	0	2	2	6
Uncles	3	3	2	2	10
Sisters-in-law	0	1	1	1	3
Brothers-in-law	1	1	2	1	5
