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Statistical Analysis of Hours Spent Studying by Delhi Students.

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This study was to determine (1) the average number of hours per day the students study; (2) if they study more during the week before an exam than at any other time during the term; (3) if students in some division study more than those in other divisions; (4) if they study more on any one day of the week than another (of a Monday-through-Thursday week); (5) if seniors study more than freshmen; (6) if one place is used more than another for studying. Fifty-one pairs of male students (42 seniors, 60 freshmen) were randomly selected from a residence hall. Half were appointed observers; the others were the observed. Observations were made and charted on two selected days about four weeks apart. The two groups then exchanged roles and the procedure was repeated. Of the possible 204 reports, 171 were received. The results showed that (1) the students study slightly more than three hours per day; (2) before an exam, they study slightly more than an extra half-hour per day; (3) there is a significant difference between divisions (e.g., Agriculture students average an hour more per day than the college average of 3.1 hours, while students in Business average about two-thirds of an hour less); (4) there is no significant difference in the number of hours spent during any one day, Monday through Thursday; (5) seniors average one-half hour more per day than freshmen; (6) the student's residence-hall room is used more for study than any other place on campus. (HH)

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*State University*  
*AGRICULTURAL AND TECHNICAL COLLEGE*  
*Delhi, New York*

*Statistical Analysis*  
*of*  
*Hours Spent Studying*  
*by*  
*Delhi Students*

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UNIVERSITY OF CALIF.  
LOS ANGELES

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CLEARINGHOUSE FOR  
JUNIOR COLLEGE  
INFORMATION

## **PROBLEM**

**The purpose of this study is to:**

- 1. Determine on the average how many hours a day students study on this campus.**
- 2. Determine if students study more the week prior to final exams than any other time during the term.**
- 3. Determine if students in some divisions study more than students in other divisions.**
- 4. Determine if students study more one day than another during any week. (week based on Monday through Thursday).**
- 5. Determine if seniors study more than freshmen or vice versa.**
- 6. Determine if one location was used more frequently than another for study purposes.**

## METHOD

Fifty-one pairs of male students were randomly selected from the residents of O'Connor Hall to participate in this study. There was a total of forty-two seniors and sixty freshmen in the sampling. Of the one hundred two students involved, fifty-one were selected as "observers" and the remainder were those to be observed.

During the first week in November 1968, the procedure to be used was explained to small groups of not more than ten students. At that time it was explained to each of the "observers" that they were being voluntarily asked to indicate the location and the hours spent studying of a designated student on two specific days. They were asked to observe on Monday November 11, 1968, and again on Wednesday December 4, 1968. Each student was given a chart on which to indicate the information. They were asked to be completely secretive regarding the observations so as not to contaminate the study.

After the eleventh of November those fifty-one students who had been observed were secretly asked if they would voluntarily observe the person who had observed them. The aforementioned procedure was explained in the same manner. They were asked to observe on Tuesday November 19, 1968, and again on Thursday December 5, 1968.

The dates selected were for two purposes:

1. The dates in November would indicate the hours spent studying during days in the term other than those just before final exams. The dates in December would indicate the hours spent studying during the week prior to final exams.

2. Each of the dates was on a different day of the week (Monday through Thursday), thus giving a cross section of any week during the term.

Of the possible two hundred four replies, one hundred seventy-one were received.

## RESULTS

Total Group	
N=	171
Mean hrs. spent studying	3.1

The Z test was used to determine if there were any significant differences between the mean of the November observations and the mean of the December observations.

Months	November	December	
N=	89	82	Z=1.68
Mean hrs. spent studying	2.8	3.4	

(Critical level for Z at 0.05 level of significance = 1.96)

Analysis of Variance was used to determine if there were any significant differences between the means of the divisions.

Divisions	Agriculture	Business	Construction	H.R.I.M.
N=	26	39	50	56
Mean hrs. spent studying	4.1	2.6	3.6	2.5

Source	D. F.	Ex <sup>2</sup>	$\bar{X}$ sq	F= 4.43
Between	3	66.37	22.123	
Within	167	833.57	4.991	
Total	170	899.94		

(Critical level for F at 0.05 level of significance = 2.67; at the 0.01 level of significance = 3.91)

Analysis of Variance was used to determine if there were any significant differences between the means of each day (Monday through Thursday).

Dates	Monday 11-11-68	Wednesday 12-4-68	Tuesday 11-19-68	Thursday 12-5-68
N=	48	41	41	41
Mean hrs. spent studying	2.4	3.3	3.4	3.6

Source	D. F.	Ex <sup>2</sup>	$\bar{X}$ sq	F = 2.35
Between	3	36.517	12.172	
Within	167	863.783	5.172	
Total	170	900.300		

(Critical level for F at 0.05 level of significance = 2.67)

The Z test was used to determine if there were any significant differences between the mean of the seniors and that of the freshmen.

	Seniors	Freshmen	
N=	72	99	Z = 1.65
Mean hrs. spent studying	3.4	2.8	

(Critical level for Z at 0.05 level of significance = 1.96)

One hundred and forty-six students indicated the location of their study.

Location	No.	%
Dormitory Room	93	64
Dormitory Lounge	15	10
Library	27	19
Farrell Hall	3	-
Thurston Hall	1	-
Smith Hall	4	-
Tri-At House	3	-



## CONCLUSIONS

1. Students at Delhi study slightly more than three hours per day (Monday through Thursday).

2. Students study slightly more than one-half hour a day just prior to final exams than they do during the rest of the term. The Z test indicates that there is no significant difference between the amount of hours spent studying just prior to final exams and the amount of hours spent studying during the rest of the term.

3. The analysis of variance indicates that there is a significant difference in the number of hours spent studying between divisions. The means of the Agricultural and Construction divisions indicate that there are more hours spent studying in these divisions than the mean hours of the total observations, with the Agriculture division studying one hour more per day. The means of the Business and H.R.I.M. divisions indicate that there are less hours spent studying in these divisions than the mean hours of the total observations, with the H.R.I.M. division studying approximately two-thirds of an hour less per day.

4. The analysis of variance indicates that there is no significant difference in the number of hours spent studying during any one day (Monday through Thursday).

5. Seniors study approximately one-half hour more a day than the freshmen. The Z test indicates that there is no significant difference between the amount of hours spent studying by seniors and the amount of hours spent studying by freshmen.

6. The residence hall room is used considerably more than any other location on campus for study purposes.