THE KNOWLEDGE GATHERING AND STUDY PATTERN OF UNDERGRADUATE STUDENTS OF THE VAVUNIYA CAMPUS OF THE UNIVERSITY OF JAFFNA

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ABSTRACT: The study examined the knowledge gathering and study pattern as contemplate example of undergraduates of Vavuniya Campus of the University of Jaffna. Precisely, the analysis made to determine the impact of gender and level of study on the pattern of knowledge gathering system by the undergraduates as well as method of studies. The analysis was based on a descriptive survey design and data was collected using an online Google form through Vavuniya Campus LMS, administered to 85 randomly selected students from both Faculty of Applied Science and Faculty of Business Studies in the Vavuniya Campus of the University of Jaffna. Statistical findings reveal that, most of the students were used lecture notes & internet as their key knowledge source and their choice of the study methods were contrasted with level of study and gender aspects.

Keywords: Chi-square, Knowledge gathering, study pattern, survey, undergraduates

1. INTRODUCTION

The Vavuniya Campus of the University of Jaffna was established on 1st April 1997 by an order made under Section 22 of the Universities Act No. 16 of 1978 of Sri Lanka with two faculties namely the Faculty of Applied Science and Faculty of Business Studies (Campus, n.d.). Now both the faculties offer five special degree programs of four year duration with an optional exit point in the third year.

The approach of the students to synthesis their insight knowledge and exploration for academic & scholastic information could be considered extremely essential to their whole performance at the end of the undergraduate studies. This position becomes more complex, particularly when students are given assignments and presentations to make, they need to explore for information with their own, consequently it is expected that they refer legitimate sources to gather academic/scholastic information.

The majority of the undergraduates prefer particular methods of learning than the others. These traits, referred to as learning styles, describe how a student naturally takes in information and process it according to his/her own individual perception when approaching a learning task (Mills, 2002). According to Wijetunge, 2015, the agriculture undergraduates of University of Peradeniya use search engines, Wikipedia and group-studies often than the other information resources. The researcher recommended that the students be provided with sufficient orientation, so that they learn themselves how to utilize the information resources effectively and when to approach librarians for assistance when they need master.

The purpose of this study was to examine the knowledge gathering and study pattern of undergraduate students in the Vavuniya Campus of the University of Jaffna. Especially the consideration was on obtaining information on the nature of academic information required by the students, the sources accessed and the common pattern of knowledge

gathering system by the students. Moreover, the study examined the impact of gender and level of study on the pattern of knowledge gathering system and method of study by used the undergraduates.

2. METHODOLOGY

This is essentially a survey study. Eighty five undergraduate students chosen randomly across the two faculties in Vavuniya Campus of the University of Jaffna. As per the records available in Examination branch of the Vavuniya Campus, totally 716 students were enrolled in year 2015 (Academic year 2013/2014) as 329 from Faculty of Applied Science and 387 from Faculty of Business Studies. The required aggregate sample size was calculated using the following formula:

$$n = \left(\frac{\frac{Z^2 \times p(1-p)}{d^2}}{1 + \frac{Z^2 \times p(1-p)}{N \times d^2}} \right)$$

Where:

Z – Z value (e.g. 1.96 for 95% confidence level),

p – Population proportion (0.5 used for sample size needed),

d – Margin of error,

N – Population size.

For this survey margin of error was chosen as 0.1, according to that the required total sample size was calculated as 85.

The comprehensive questionnaire was prepared according to the objective of the research. The responses were collected using online Google form through Vavuniya Campus LMS. Data was analyzed using descriptive statistics of frequency and percentages. The Chi–square statistic was used to test the formulated hypotheses.

3. RESULTS AND DISCUSSION

A total of 108 responses were received and the excess responses were randomly discarded as required sample size. The breakdown of number of selected response for this study is shown in Table 1.

Table 6. Number of response

		Male	Female	Total
Level of Study	First year	17	16	33
	Second year	14	12	26
	Third year	12	8	20
	Fourth year	3	3	6

Total	46	39	85

a. The overall observations

The Figure 1 illustrates the percentages of the preferred knowledge sources of students while the Figure 2 illustrates the preferred study methods of students.

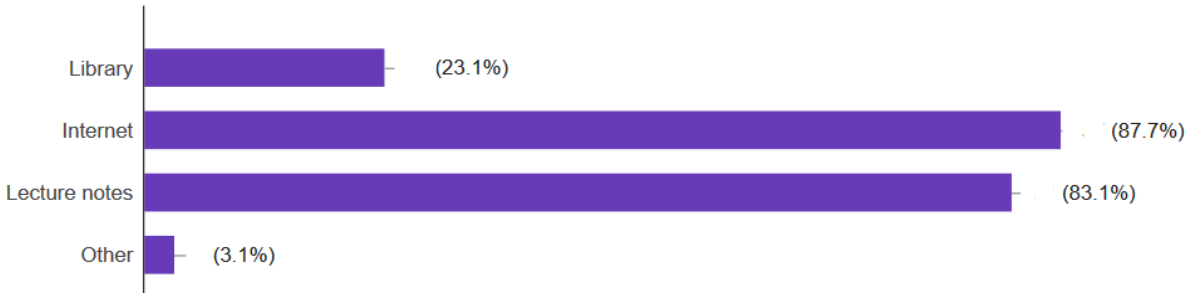

Figure 3. Preferred knowledge sources

Figure 4. Preferred study methods

According to the Figure 1, lecture notes (87.7%) and internet (83.1%) were the key sources of the students and the Library usage (23.1%) was compared to very low. According to the Figure 2, there were moderated percentage of students were used group discussion (52.3%) and in-class (55.4%) as their study methods while 70.8% of them were used self-study as their main study method.

There were 63.53% of students gathered 50% - 75% knowledge form lectures, 20% of them gathered as 25% - 50%, and only 10.56 % of them gathered more than 75% knowledge from lectures. Approximately 72.3% students were reported that they could not understand lecture material when they read first time and 46.2% of them were struggled with command of English grammar, punctuation, and spelling. Only 35.4% of students were kept regular schedule for study. The Figure 3 illustrates the percentages of time span approximately spend by the students for their study in every day while the Figure 4 illustrates percentages of preferred study time other than lecture hours.

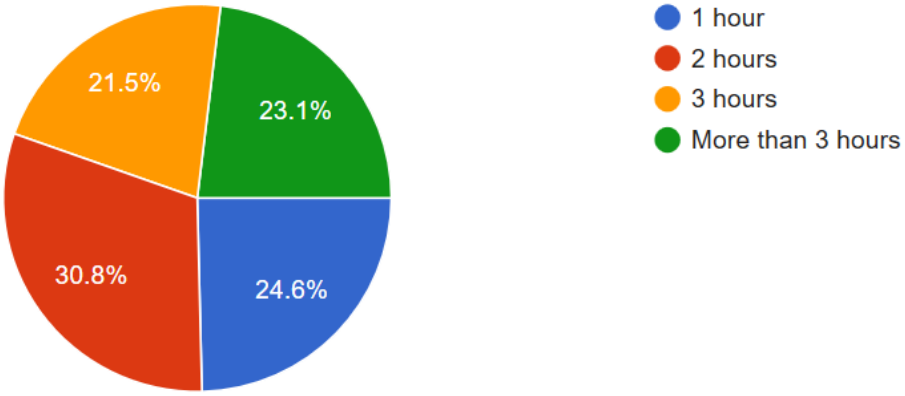

Figure 5. Time spend by students for study in every day

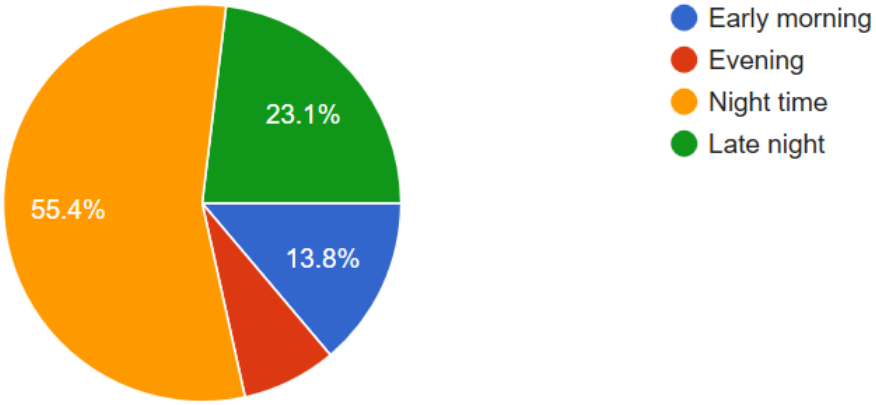

Figure 6. Preferred study time

According to the Figure 3, approximately each time spans were equally used by the students however little more students (30.8%) spent two hours in every day for their study. According to the Figure 4, most of the students (78.5%) were used nighttime for their studies other than lecture hours particularly 23.1% of them used the late nighttime.

There was no students to allocate time for socializing with friends. Approximately 46.2% of students were reported that their study was often interrupted by their friends. Among all students 83.1% of them agreed that they speedup the study during the study leave while 56.9% of them have capability to predict the exam question types. Surprisingly there were 18.5% of students did not have any interruption by phone, texting, visiting, internet, or other activities while their study.

b. Testing of the students' study pattern

To analyze the changing pattern of knowledge gathered from lectures according to level of study and gender, the first research hypothesis (H_{11}) and the Null hypothesis (H_{10}) stated that:

H_{10}: The percentage of knowledge gathering from lectures is independent from the level of the study of the students.

H_{11}: The percentage of knowledge gathering from lectures is depending on the level of the study of the students.

And the second research hypothesis (H_{21}) and the Null hypothesis (H_{20}) stated that:

H_{20}: The percentage of knowledge gathering from lectures is independent from the gender of the students.

H_{21}: The percentage of knowledge gathering from lectures is depending on the gender of the students.

To analyze the influence of level of study and gender on choice of the preferred study methods, the third research hypothesis (H_{31}) and the Null hypothesis (H_{30}) stated that:

H_{30}: The preferred study method is independent from the level of the study of the students.

H_{31}: The preferred study method is depending on the level of the study of the students.

And the fourth research hypothesis (H_{41}) and the Null hypothesis (H_{40}) stated that:

H_{40}: The preferred study method is independent from the gender of the students.

H_{41}: The preferred study method is depending on the gender of the students.

The Chi–square test was performed to test the hypotheses using Minitab. The Figure 5, Figure 6, Figure 7 and Figure 8 shows the Minitab outputs of the test of H11, H21, H31 and H41 respectively. In the first column of the Figure 5 and Figure 7, the numbers 1, 2, 3 & 4 denotes the Level 1, Level 2, level 3 and Level 4 respectively, in the first column of Figure 6 and Figure 8, the numbers 1 and 2 denotes the Male and Female respectively and in the Figure 7 and Figure 8, the observed and expected counts are displayed as percentages.

Chi-Square Test: Less than 25%, 25% - 50%, 50% - 75%, Greater than 75%

Expected counts are printed below observed counts
Chi-Square contributions are printed below expected counts

	Less than 25%	25% - 50%	50% - 75%	Greater than 75%	Total
1	2	6	21	4	33
	1.94	6.60	20.96	3.49	
	0.002	0.055	0.000	0.073	
2	2	5	18	1	26
	1.53	5.20	16.52	2.75	
	0.145	0.008	0.133	1.116	
3	1	5	12	2	20
	1.18	4.00	12.71	2.12	
	0.026	0.250	0.039	0.007	
4	0	1	3	2	6
	0.35	1.20	3.81	0.64	
	0.353	0.033	0.173	2.932	
Total	5	17	54	9	85

Chi-Sq = 5.344, DF = 9

Figure 7. Minitab output of the Chi-squared test of the knowledge gathering vs. level of study

According to the Figure 5, the Chi-squared statistic is 5.344 and respective p-value is 0.804. Since the p-value is greater than the conventionally accepted significance level of 0.05, so the Null hypothesis H_{10} is accepted.

Expected counts are printed below observed counts
Chi-Square contributions are printed below expected counts

	Less than 25%	25% - 50%	50% - 75%	Greater than 75%	Total
1	3	9	28	6	46
	2.71	9.20	29.22	4.87	
	0.032	0.004	0.051	0.262	
2	2	8	26	3	39
	2.29	7.80	24.78	4.13	
	0.038	0.005	0.060	0.309	
Total	5	17	54	9	85

Chi-Sq = 0.762, DF = 3

Figure 8. Minitab output of the Chi-squared test of the knowledge gathering vs. gender

According to the Figure 6, the Chi-squared statistic is 0.762 and respective p-value is 0.859. Since the p-value is greater than the conventionally accepted significance level of 0.05, the Null hypothesis H_{20} is also accepted.

Chi-Square Test: Self-study, Group discussion, In class

Expected counts are printed below observed counts
Chi-Square contributions are printed below expected counts

	Self-study	Group discussion	In class	Total
1	21	6	12	39
	15.60	11.31	12.09	
	1.869	2.493	0.001	
2	12	7	11	30
	12.00	8.70	9.30	
	0.000	0.332	0.311	
3	6	12	6	24
	9.60	6.96	7.44	
	1.350	3.650	0.279	
4	1	4	2	7
	2.80	2.03	2.17	
	1.157	1.912	0.013	
Total	40	29	31	100

Chi-Sq = 13.366, DF = 6

Figure 9. Minitab output of the Chi-squared test of the study methods vs. level of study

According to the Figure 7, the Chi-squared statistic is 13.366 and respective p-value is 0.038. Since the p-value is less than the conventionally accepted significance level of 0.05, the Null hypothesis H_{30} is rejected.

Chi-Square Test: Self-study, Group discussion, In class

Expected counts are printed below observed counts
Chi-Square contributions are printed below expected counts

	Self-study	Group discussion	In class	Total
1	17	25	12	54
	21.60	15.66	16.74	
	0.980	5.571	1.342	
2	23	4	19	46
	18.40	13.34	14.26	
	1.150	6.539	1.576	
Total	40	29	31	100

Chi-Sq = 17.157, DF = 2

Figure 10. Minitab output of the Chi-squared test of the study method vs. gender

As indicated in the Figure 8, the Chi-squared statistic is 17.157 and respective p-value is 0. Since the p-value is less than the conventionally accepted significance level of 0.05, the Null hypothesis H_{40} is also rejected.

Form the test of hypothesizes H_{11} and H_{21}, it can be reasoned that, the rate of knowledge gathering from lectures is autonomous in both the level of study and gender of the undergraduates and from the test of hypothesizes H_{31} and H_{41}, it can be concluded that, the level of study and gender overwhelmingly influenced on their preferred study methods of the students in Vavuniya Campus.

4. CONCLUSION

The majority of the students rely on the internet as their knowledge source other than lecture notes, which has no guarantee for its reliability. It is recommended that, the proper guidance should be given to students to utilize validated sources in the internet. Apart from this, Library usage and group discussions are urged to build up their reading skill and team work ability respectively.

There is no significant difference in knowledge gathering pattern with respect to the level of study and gender, but they seem to be the factors influencing on preferred study methods.

The Vavuniya Campus of the University of Jaffna students are adapted to survive in the modern competitive and socialization world with respect to the study.

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