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**FACTORS THAT AFFECT RETENTION OF THIRD YEAR CIVIL ENGINEERING
STUDENTS IN A CATHOLIC UNIVERSITY IN THE PHILIPPINES**

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ABSTRACT

This study aimed to determine the factors that affect the retention of all 3rd year CE students of Saint Mary's University using percentage, frequency, rank, mean, standard deviation, and Pearson correlation. Results revealed that majority of the respondents hardly visited the library. Majority of the respondents borrowed Engineering-related books and have read books at the Engineering Section while the least visited section was the periodicals section. Moreover, the e-library was one of the major sources of information. In terms of the problems affecting the retention, it was found that the library was usually dark which discouraged reading. Significant relationship exists between civil engineering experiences in reading materials and in borrowing books from some of the sections of the library and their retention-related experiences. Based on the findings, the students seldom utilized the resources of the library. Reading books from the Science / Mathematics Section and the Engineering Section has significant relationship with the General Weighted Average (GWA) last semester. Reading books from the Science / Mathematics Section has a significant relationship with the lowest grade obtained last semester. Civil engineering experiences in reading materials and in borrowing books from some of the sections of the library and their retention-related experiences have significant relationship. The study recommends that the department must continue practicing and improving the retention policy. Students should use the library and its resources to enhance their knowledge. The librarians must sustain the collections that are useful to students and improve the services.

Keywords: *Civil Engineering students, library services, reading books, retention policy, student's library experiences.*

Introduction

Matters with regard to retention and persistence gradually grow in importance throughout the history of education especially in the tertiary level in our country. In most of the studies in Higher Education Institutions, there are critical issues regarding the increasing student retention, with far-reaching effects on many other areas of life including the well-being of students and society. A number of researches regarding retention have highlighted the role of student engagement in influencing students' dropping and withdrawal decision. Data gathered by the national survey of student engagement have assessed ten practices that bear "high impact" on student engagement and student retention. The study also sought to satisfy the gap in the literature on the role played by academic libraries in affecting student retention by analysing the perception of academic library deans/directors on the alignment between library services and resources with the ten high-impact practice (Murray, 2014). Poor retention rate, according to Cotter (2013), was also an unending circumstance among tertiary level education institutions around the world. Maintaining high student retention is important to the survival of a higher education institution. Lots of education providers with low retention rates are at the verge of being unprofitable. In order to solve the problem, higher education institutions should know what is going wrong and the magnitude of the problem.

Retention has been affected by student pre-entry attributes, goals, commitments, academic and social integration. According to a research done by

Al-Dossary (2008), gender, student goals, need for remedial student grid point averages, and contact with faculty or hours studied were related to student retention.

Since students' decision on major or career option is a primary factor in student retention and persistence, strong connection of advising programs must be done to the career services of the university which is basically a part of every retention plan. Advising and career services should be interrelated in order for students to know and assess the link between their academic planning and decision in their career objectives. Academic difficulty is one of the factors why students drop out or even stop. Adjustment problems, lack of clear academic and career goals, uncertainty, lack of commitment, poor integration to the college community, incongruence, and isolation were some of the cited factors. Consequently, retention has greatly been affected by the development of student communication and interaction with university personnel.

Researches about student retention were the common topics in higher education over the past 30 years according to Broxton (2002) and Seidman (2005). Further, previous studies were conducted to ask students to provide ideas/thoughts concerning retention. Everyday interaction with students, fellow administrations, and others on their campuses was dedicated to developing retention and graduation rates. The core purpose of surveys has been to assess the factors that affect student retention (Haddow, 2013).

To cope with these problems and changes in education, RA 7722 mandated the Commission on Higher Education to promote quality education, broaden access to higher education, protect academic freedom for continuing intellectual growth, and

ensure advancement of learning and research. Pursuant to these mandates, the Commission has vigorously implemented programs and projects along its four major thrusts namely: access and equity, quality and excellence, relevance and responsiveness and efficiency and effectiveness. Financial factors have great impact to the retention of the students that is why CHED grants scholarship programs like State Scholarship Program intended for poor but academically bright Filipino college students. Private Education Student Financial Assistance Program (PESFA) was established by virtue of RA 6728, an Act Providing Government Assistance to the Students and Teachers in Private Education and other more programs.

To support the government underpinnings especially on retention, Saint Mary's University also practices retention. Saint Mary's University (SMU) is a Catholic, non-sectarian institution in the Philippines. The School of Engineering, Architecture and Information Technology (SEAIT), one of the departments in SMU, consists of converged programs including Information Science, Information Technology, Library and Information Science, Civil Engineering and other branches of Engineering. According to the undergraduate students' handbook, Engineering and Architecture has been accredited by Philippine Accrediting Association of School, Colleges and Universities (PAASCU) for its Civil Engineering (CE) Program and has been identified as a Center for Development (COD) for Civil Engineering. Thus, to ensure that only qualified persons gain membership in the Engineering and Architecture Professions and/or to maintain the professional standards demanded by these professions through learning, the school provides students the instituted retention policy that if engineering students take any subject for the second time,

they will be allowed to pursue their engineering course provided that their grade is not lower than 80. Students who fail 50% or more of their subjects are expelled from the course. This policy prompted the researchers to conduct this study and determine the factors that affect retention.

The study aimed to know the factors that affect the retention of third year Civil Engineering students of Saint Mary's University. Specifically, it aimed to answer the following questions: 1) What is the profile of respondents in terms of: a. age; b. gender; and c. socio-economic status?; 2) What are the retention-related experiences of the respondents in terms of the following: a) number of subjects failed; b) general weighted average last semester; and c) lowest grade obtained last semester; 3) What are the library services related factors that affect the retention of third year Civil Engineering students in terms of: a) frequency of going to the library; b) adequacy of available books; and c) problems affecting effective use of library; 4) Is there significant relationship between the provision of library services and the retention-related experiences of respondents?; 5) What recommendations can be proposed to improve the retention policy of the university?

Methodology

The study used descriptive research design to investigate the factors that affect retention of 3rd year Civil Engineering students of Saint Mary's University. The respondents were the undergraduate third year Civil Engineering students during the second semester of S.Y. 2016-2017 because they have the highest population within the department.

Results and Discussions

Section 1. Profile of the Respondents in Terms of Age, Gender, and Socio-economic Status

Table 1
Profile of the 3rd Civil Year Engineering Students in Terms of Age, Gender, and Socio-economic Status

Profile	Frequency	Percent
SEX		
Male	57	62.0
Female	35	38.0
Total	92	100.0
AGE		
17	3	3.3
18	21	22.8
19	49	53.3
20	9	9.8
21	2	2.2
No Answer	8	8.7
Total	92	100.0
MONTHLY GROSS INCOME		
Below 5,000	11	12.0
5,000-10,000	19	20.7
10,001-15,0000	22	23.9
15,001-20,000	12	13.0
20,001 and above	28	30.4
Total	92	100.0

Table 1 shows the profile of the respondents in terms of gender, age and socio-economic status. There were 57 male respondents and 35 female respondents with a total of 92 respondents. Among the 92 respondents, three (3.3%) were 17 years old; 21 (22.8%) were 18 years old; 49 (3.3 %) were 19 years old; nine (9.8%) were 20 years old, and eight (8.7%) did not indicate their age. It indicates that the average engineering student is most likely to be a male and aged

19 years old.

Table 1 also shows the families' monthly gross income. There were 11 (12%) respondents with 5, 000 and below monthly gross income; 19 (20.7 %) with 5, 000 - 10, 000; 22 (23.9%) with 10, 000-15, 000; 12 (13%) with 15, 000- 20, 000; and 20 (30.4%) received a monthly gross income of 20, 000 above. The findings are corroborated by the study of Al-Dossary (2008) which pointed that the economic status of the respondents has great impact on the retention. He also pointed that respondents with lower economic status dropped out to study in a university or college with cheaper tuition fees.

Section 2. Retention-related Experiences of the Respondents in Terms of Number of Subjects Failed, General Weighted Average Last Semester, and Lowest Grade Obtained Last Semester

Table 2
Retention-Related Experiences of the Respondents in Terms of Number of Subjects Failed, General Weighted Average Last Semester, and Lowest Grade Obtained Last Semester

Variables	Frequency	Percent
NO. OF SUBJECTS FAILED		
0 OR 1	52	56.5
2 OR 3	30	32.6
4 OR 5	7	7.6
GWA LAST SEM		
BELOW 75	4	4.3
75.00-79.99	29	31.5
80.00-84.99	49	53.3
85.00-89.99	9	9.8
95.00-100.00	1	1.1
Total	92	100.0
LOWEST GRADE OBTAINED LAST SEMESTER		
BELOW 75	31	33.7
75.00-79.99	54	58.7
80.00-84.99	6	6.5
85.00-89.99	1	1.1
Total	92	100.0

Table 2 shows the retention-related experiences of the respondents in terms of the number of subjects they failed, their general weighted average last semester,

and the lowest grade obtained last semester. As seen from the table, most of the respondents (52 or 56.5 %) had zero or one failed subject; 30 (32.6%) had two or three failed subjects, and seven (7.6%) had four or five failed subjects.

In terms of the General Weighted Average last semester, majority (49 or 53.3%) of the respondents had GWA of 80.00-84.99 while only one (1.1%) had 95.00-100.00 GWA. It implies that having a GWA of 95.00-100.00 was very rare while having a GWA of 80.00-84.99 was commonly observed. It means that only few have undergone retention.

In terms of the lowest grade obtained last semester, majority (54 or 58.7%) of the respondents obtained 75-79.99 grades followed by 31 (33.7%) respondents with grades below 75, and one (1.1%) with grade of 85.00-89.99. It suggests that majority of the respondents have lowest grade ranging from 75-79.99 and they rarely got 85.00-89.99 as their lowest grade.

These findings indicate that only few students have failing grades with low GWA although some had obtained low grade. This can be understood through the study of Xia and Kirby (2009) which found that there is no academic benefit or even negative impact on students who experienced retention. Though some had a grade below 75, they were still given chance to improve their performance.

Section 3. Third Year Civil Engineering Students' Frequency of Going to the Library

Table 3
Frequency of Going to the Library

Categories	Frequency	Percent
Daily	5	5.4
Five days in a week	1	1.1
Four days in a week	6	6.5
Three days in a week	15	16.3
Two days in a week	19	20.7
Once in a week	14	15.2
Hardly visit the library	31	33.7
No Answer	1	1.1
Total	92	100

Table 3 presents the respondents' frequency and percentage of going to the library. Among the 92 respondents, 31 (33.7%) answered they hardly visited the library which got the highest frequency while the lowest (one or 1.1%) frequency was noted on visiting the library five days in a week and no answer. This shows that majority of the respondents hardly visited the library. This implies that there is a need to encourage students to make use of the library resources through their instructors inasmuch as productive use of library services help them comply with retention. As mentioned in the study of Kot and Jones (2016), going to the library and borrowing books has a bearing on the academic achievement of the students.

Table 4

Frequency of Borrowing Engineering-related and Mathematics Books, Reading Books from the General Reference, Periodicals and Science / Mathematics, Engineering Sections & E-library and Mean and Standard Deviation on Adequacy of Library Materials

Item	YES		NO		Mean	SD	QD
	f	%	f	%			
1. Have you ever borrowed:							
a. Engineering-related books?	54	58.7	38	41.3	1.16	1.170	VA
b. Mathematics books?	47	52.2	43	47.8	1.04	1.141	VA
2. Have you ever read books from the:							
a. General Reference Section?	43	46.7	49	53.3	.86	1.106	VA
b. Periodicals Section?	41	45.1	50	54.9	.85	1.064	VA
c. Science / Mathematics Section?	63	69.2	28	30.8	1.44	1.210	VA
d. Engineering Section?	72	80.9	17	19.1	1.34	0.835	VA
3. Have you ever used the e-Library?	76	87.4	11	12.6	1.54	0.920	A

Legend: VA - Very Adequate; FA - Fairly Adequate; A - Adequate; NA - Not Adequate
Scale: 1.00-1.49 - Greatly affect retention; 1.50-2.49 – Factors that frequently affect retention;
2.50-3.49 – Factors that less affect retention; 3.50-4.00 – Factors that do not affect retention

The table shows that more than half (54 or 58.7%) of the respondents borrowed engineering-related books; 38 or 41.3% did not, and that the volume of available books that fit their subjects/academic requirements or engineering-related books was very adequate (m= 1.16). Most (47 or 52.2%) of the respondents borrowed mathematics books while 43 (47.8%) did not. The volume of available books that fit their subjects/academic requirements or mathematics books was very adequate (m=1.04). Forty-nine (53.3%) of the respondents did not read books from

the General Reference Section while 43 (46.7%) did. The volume of available books that fit their subjects/academic requirements or the books from the General Reference Section was very adequate ($m=.86$). More than half (50 or 54.9%) of the respondents did not read books from the Periodicals Section while 41 (45.1%) did. The volume of available books that fit their subjects/academic requirements or books from the Periodicals Section was very adequate. More than half (63 or 69.2%) of the respondents read books from the Science / Mathematics Section while 28 (30.8%) did not. The volume of available books that fit their subjects/academic requirements or books from the Science / Mathematics Section was very adequate ($m=1.44$). Majority (72 or 80.9%) of the respondents read books from the Engineering Section while 17 (19.1%) did not. The volume of available books that fit their subjects/academic requirements or books from the Engineering Section was very adequate ($m=1.34$). Most (76 or 87.4%) of the respondents used the e-Library while 11 (12.6%) did not. The use of e-Library was adequate ($m=1.54$).

These results negate the study of Palis (2006) which found that book loans were generally very limited. Among those who actually borrowed, the mean number of book loans was 4.58 books. The big standard deviation of 5.83 indicates that while some students have borrowed one book during the first semester, there were those who borrowed so many books which indicates a wide variation of book loans.

Table 5
Frequency of the Number of Books Borrowed by the Respondents in a Week

Books Borrowed in a Week	Frequency	Percent
None	47	51.1
1-3	41	44.6
4-6	2	2.2
No Answer	2	2.2
Total	92	100.0

Table 5 shows the frequency of borrowed books by the respondents in a week. The table shows that out of the 92 respondents, 47 (51.1%) did not borrow any book in a week; 41 (44.6%) borrowed 1-3 books in a week; two or 2.2% borrowed 4-6 books in a week and two did not answer. It indicates that more than half of the respondents do not borrow books in the library.

Table 6
Problems Affecting the Retention of the 3rd Year Civil Engineering Students

Problems Affecting The Retention	Mean	SD	QD
1. Little/No assistance from the library staff	2.38	.840	Agree
2. Poor organization of the materials on the shelves	2.39	.811	Agree
3. Ineffectiveness of the library catalogue	2.53	.779	Disagree
4. Lack of organization in the library	2.47	.748	Agree
5. Collections are inadequate	2.38	.840	Agree
6. Collections are not relevant	2.63	.794	Disagree
7. Collections are outdated	2.38	.862	Agree
8. The library has little or no resources in my course of study	2.65	.895	Disagree
9. The library is usually dark which discourages reading	2.76	.894	Disagree
10. The library is deficient in electronic/online library services	2.37	.898	Agree
11. Users are not educated on how to use the library	2.55	.803	Disagree
12. The library has no guide to direct users to appropriate sections of the library	2.49	.797	Agree

Problems Affecting The Retention	Mean	SD	QD
13. The library environment is not conducive/friendly for reading and learning	2.58	.831	Disagree
14. The library staff are not friendly and therefore, scare users away from the library	2.63	.910	Disagree
15. The library lacks space in terms of seating capacity	2.36	.949	Agree
Overall Mean	2.50	.604	Disagree

Legend: 1.00 – 1.49 – Strongly Agree; 1.50 – 2.49 – Agree;
2.50 – 3.49 – Disagree; 3.50 – 4.00 - Strongly Disagree

Table 6 shows the problems affecting the retention of the respondents. The respondents agreed that they had little or no assistance from the library staff (m=2.38), there was poor organization of materials on the shelves (m=2.39), there was lack of organization in the library (m=2.47), the collections in the library are inadequate (m=2.38), the collections in the library are outdated (m=2.38), the library is deficient in electronic/online library services (m=2.37), the library has no guide to direct users to appropriate section of the library (m=2.49), and the library lacks space in terms of seating capacity (m=2.36).

On the other hand, the respondents disagreed about the ineffectiveness of the library catalogue (m=2.53), collections in the library are not relevant (m=2.63), the library has little or no resources in their course of study (m=2.65), the library is usually dark which discourages reading (m=2.76), the users are not educated on how to use the library (m=2.55), the library environment is not conducive/friendly for reading and learning (m= 2.58), and the library staff are not friendly and therefore, scare users away from the library (m= 2.63). The overall mean states that the respondents disagree with the problems affecting their retention (m=2.50).

The study of Al-Dossary (2008) supports the findings which found that interaction with the staff/teacher has great impact on the retention of the students. If

the staff is not friendly and approachable, then the students would likely not ask, or in a library setting, would not borrow books for they are scared to do so. The findings in Ricardo's (1997) study negated the results of this study which stated that students seemed not satisfied with the services offered by their respective librarian.

Section 4. Significant Relationship between Library Services and Retention-Related Experiences of Respondents

Table 7
Correlation of Variables to the Number of Subjects Failed

Variables	Chi-Square Statistic	Asymp. Sig. (2-tailed)	Verbal Interpretation
Borrowing engineering-related books.	$X^2(3)=4.956$	.175	Not Significant
Borrowing mathematics books	$X^2(3)=14.412$	.414	Not Significant
Reading books from the General Reference Section	$X^2(3)=4.956$	.002	Significant
Reading articles from the Periodicals Section	$X^2(3)= 6.079$	.108	Not Significant
Reading books from the Science / Mathematics Section	$X^2(3)= 4.040$	.257	Not Significant
Reading books from Engineering Section	$X^2(3)=1.902$	.593	Not Significant
Using The E-Library	$X^2(3)=3.891$	.273	Not Significant
Number of Books Borrowed in a Week	$X^2(3)= 5.208$	.517	Not Significant

As seen from the Table 7, the only variable with significant relationship to the number of subjects failed is on "reading books from the General Reference Section" as indicated by the Chi-Square test statistic (Chi-Square= 4.956) and the p value of .002, which is less than the alpha level of significance of 0.05. Therefore, there is significant relationship between reading books from the General Reference Section with the number of subjects failed. It implies that students who read books from the General Reference Section would less likely to have failing grades.

On the other hand, borrowing engineering-related and mathematics books, reading books from the Periodicals, Science / Mathematics and Engineering Sections, using the e-Library, and the number of books borrowed in a week do not have any bearing on the possible number of subjects failed.

Table 8
Correlation of Variables with the General Weighted Average Last Semester

Variables	Chi-Square	Asymp. Sig. (2-tailed)	Verbal Interpretation
Borrowing Engineering-related Books	$X^2(3)=8.399$	.078	Not Significant
Borrowing of Mathematics Books	$X^2(3)= 8.124$	.087	Not Significant
Reading from the General Reference Section	$X^2(3)= 9.438$	.051	Not Significant
Reading from the Periodicals Section	$X^2(3)= 7.510$	.111	Not Significant
Reading from the Science / Mathematics Section	$X^2(3)= 7.510$	.020	Significant
Reading from the Engineering Section	$X^2(3)= 10.947$	.027	Significant
Using the e-Library	$X^2(3)= 7.836$	.098	Not Significant
Number of Books Borrowed in a Week	$X^2(3)= 13.357$	.100	Not Significant

Table 8 revealed that there are two variables with significant relationship with the General Weighted Average last semester. The significance value of the Chi-Square test statistic (Chi-Square= 7.510) was $p= .020$, which is less than the alpha level of significance of 0.05; therefore, there is a significant relationship between reading books from the Science / Mathematics Section with the General Weighted Average Last Semester. It implies that reading books from the Science / Mathematics Section has bearing on the General Weighted Average last semester because the materials present in the section are related to the course of the

students.

Likewise, the significance value of the Chi-Square test statistic (Chi-Square= 10.947) was $p = .027$, which was less than the alpha level of significance of 0.05; therefore, there is a significant relationship between reading books from the Engineering Section with the General Weighted Average Last Semester. It implies that reading books from the Engineering Section has bearing on the General Weighted Average last semester due to the specialized collection of engineering-related materials that can be used by the students.

However, borrowing engineering-related and mathematics books, reading books from the Periodicals and General Reference Sections, using the e-Library and the number of books borrowed in a week do not have any bearing with the General Weighted Average last semester.

Table 9
Correlation of Variables with the Lowest Grade Obtained Last Semester

Variables	Chi-Square	Asymp. Sig. (2-tailed)	Verbal Interpretation
Borrowing Engineering-related Books	$X^2(3)=4.688$	.196	Not Significant
Borrowing Mathematics Books	$X^2(3)= 5.625$	.131	Not Significant
Reading from the General Reference Section	$X^2(3)=5.498$	.139	Not Significant
Reading from the Periodicals Section	$X^2(3)=6.245$	.100	Not Significant
Reading from the Science / Mathematics Section	$X^2(3)=8.221$	.042	Significant
Reading from the Engineering Section	$X^2(3)=3.736$	.291	Not Significant
Using the e-Library	$X^2(3)=3.000$	.223	Not Significant
Number of Books Borrowed in a Week	$X^2(3)=6.983$	.322	Not Significant

Table 9 shows that the only variable which is significantly related with the lowest grade obtained last semester was the “reading from the Science / Mathematics Section” with significance value of $p = .042$ of the Chi-Square test statistic (Chi-Square= 8.211) which is less than the alpha level of significance of 0.05; therefore, there is significant relationship between reading books from the Science / Mathematics Section with the Lowest Grade Obtained last semester. It implies that students who read books from the General Reference Section would less likely to have failing grades.

Meanwhile, borrowing engineering-related and mathematics books, reading books from the Periodicals, General Reference and Engineering Sections, using the e-Library, and the number of books borrowed in a week do not have any bearing with the lowest grade obtained last semester.

Table 10
Significant Relationship between Adequacy of Library Materials and Retention-Related Experiences

Variables		GWA Last Sem	Lowest Grade Obtained last sem	No. of Subjects Failed	
Spearman's ρ	Engineering-related books	Correlation Coefficient	.025	.126	.171
		Sig. (2-tailed)	.812	.235	.107
		N	90	90	90
	Mathematics books	Correlation Coefficient	-.066	.140	.156
		Sig. (2-tailed)	.538	.189	.142
		N	90	90	90
	Books from the General Reference Section	Correlation Coefficient	-.114	.198	.205
		Sig. (2-tailed)	.289	.064	.055
		N	88	88	88
	Books from the Periodicals Section	Correlation Coefficient	-.084	.074	.146
		Sig. (2-tailed)	.433	.491	.168
		N	90	90	90
Books from the Science / Mathematics Section	Correlation Coefficient	-.030	.131	.296*	
	Sig. (2-tailed)	.786	.230	.006	
	N	86	86	86	
Used the e-Library	Correlation Coefficient	.041	.239*	.314*	
	Sig. (2-tailed)	.711	.028	.003	
	N	85	85	85	

Adequacy Mean	Correlation Coefficient	-.050	.163	.309*
	Sig. (2-tailed)	.636	.123	.003
	N	91	91	91

Table 10 shows that there is significant relationship between adequacy of books from the Science / Mathematics Section, adequacy of materials and the fast access or online materials in the e-library and the overall adequacy of materials in the whole library, and the number of subjects failed by engineering students. This means that the lower the number of materials available, the more subjects the engineering students fail. A significant relationship also exists between adequacy of materials in the e-library and the lowest grade obtained by the civil engineering students.

Table 11
Significant Relationship between Problems Affecting Retention and Retention-Related Experiences

Problems Affecting Retention and Retention-Related Experiences		GWA last semester	Lowest grade obtained last semester	No. of subjects failed
Little/No assistance from the library staff	Correlation Coefficient	.126	.080	-.024
	Sig. (2-tailed)	.232	.449	.823
	N	91	91	91
Poor organization of the materials on the shelves	Correlation Coefficient	.155	.051	-.004
	Sig. (2-tailed)	.140	.631	.969
	N	92	92	92
Ineffectiveness of the library catalogue	Correlation Coefficient	.009	-.033	-.103
	Sig. (2-tailed)	.930	.757	.330
	N	91	91	91
Lack of organization in the library	Correlation Coefficient	.107	-.024	.039
	Sig. (2-tailed)	.312	.819	.711
	N	92	92	92
Collections are inadequate	Correlation Coefficient	-.088	-.149	-.011
	Sig. (2-tailed)	.406	.160	.917
	N	91	91	91
Collections are not relevant	Correlation Coefficient	-.017	.049	.048
	Sig. (2-tailed)	.872	.641	.649
	N	92	92	92
Collections are outdated	Correlation Coefficient	.028	-.090	.136
	Sig. (2-tailed)	.790	.394	.195

Problems Affecting Retention and Retention-Related Experiences		GWA last semester	Lowest grade obtained last semester	No. of subjects failed
	N	92	92	92
The library has little or no resources in my course of study	Correlation Coefficient	.110	-.059	.008
	Sig. (2-tailed)	.298	.574	.939
	N	92	92	92
The library is usually dark and in this discourages reading	Correlation Coefficient	.161	.028	-.045
	Sig. (2-tailed)	.126	.794	.671
	N	92	92	92
The library is deficient in electronic/online library services	Correlation Coefficient	.194	-.034	.048
	Sig. (2-tailed)	.064	.745	.648
	N	92	92	92
Users are not educated on how to use the library	Correlation Coefficient	.242*	.073	.054
	Sig. (2-tailed)	.020	.488	.609
	N	92	92	92
The library has no guide to direct users to appropriate sections of the library	Correlation Coefficient	.148	-.092	-.053
	Sig. (2-tailed)	.163	.387	.620
	N	90	90	90
The library environment is not conducive/friendly for reading and learning	Correlation Coefficient	.107	.063	-.066
	Sig. (2-tailed)	.313	.555	.532
	N	91	91	91
The library staff are not friendly and therefore, scare users away from the library	Correlation Coefficient	.061	.056	.013
	Sig. (2-tailed)	.564	.598	.901
	N	92	92	92
The library lacks space in terms of seating capacity	Correlation Coefficient	.050	-.156	-.009
	Sig. (2-tailed)	.637	.140	.933
	N	91	91	91
Overall	Correlation Coefficient	.117	-.068	.021
	Sig. (2-tailed)	.266	.521	.844
	N	92	92	92

Table 11 shows that a significant relationship exists only between the users not being educated on how to use the library and their GWA last semester, $\rho(92)=.242$, $p=.020$. The relationship means that the more that they are not educated on how to use the resources for their study and learning, the lower is their GWA on all their subjects. Note, however, that the relationship is weak and that this could be explained and/or supported by other factors that could affect the students' GWA.

Conclusions and Recommendations

Based on the findings, students seldom utilize the resources of the library maybe because of the adequacy of the materials that are available for use. Thus, other materials that are adequate enough may help them in maintaining good grades that are viable for their retention. If these materials are to be used more often, then it would have made a great impact in the attainment of higher grades.

Reading books from the Science / Mathematics Section has a significant relationship with the General Weighted Average last semester due to the location of the materials needed by the respondents. Mathematics and other related topics, which is part and parcel of the courses of the engineering students, can be located in this section of the library.

Reading books from the Engineering Section has a significant relationship with the General Weighted Average last semester because of the specialized number of materials used and needed by the students. Engineering Section is a section in the library which houses books and other sources of information related to the Engineering program utilized by the respondents. Likewise, reading books from the Science / Mathematics Section has a significant relationship with the lowest grade obtained last semester maybe because respondents did not utilize or regard this section of the library as their chief source of information.

Civil engineering experiences in reading materials and in borrowing books from some of the sections of the library and their retention-related experiences have significant relationship because those who have read materials and borrowed books perhaps obtained grades necessary for retention. The adequacy of materials does

not have significant relationship with their retention-related experiences since some materials needed by the users can be located on the internet or somewhere else.

Although the study involved only a particular group of respondents, it is assumed that the findings and conclusions can fairly represent the whole Third year Civil Engineering Students of SMU. Therefore, it is recommended that: 1) the department must continue practicing the retention policy and enhance the program; 2) the students should use the library and its resources more often to enhance their knowledge and support their studies in order to have high grades; and 3) The librarians should sustain the collections that are useful to students and should improve the services more to encourage users.

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