Analysis of Relationship between Library Book Borrowings and Student Grades

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Abstract

In the era of technology, every student around the world is mostly dependent on internet based resources. From KG to PG, it is general observation that nowadays students are more attracted to E-learning systems which are easily available at any point of time. Thus students are becoming reluctant to actually borrow books from the library and use them physically for reading or learning purposes. Researcher would like to understand the relationship between habit of borrowing library books and grades achieved. The samples of 338 passed out students of 2011-13 and 2012-14 batches of MMS for four semesters are being studied to reveal the relationship. The hypothesis considering the association between grades and books borrowings is tested with the help of chi square test .It is generally observed that that student who has borrowed more books had achieved better grades than less book borrowing student except few cases.However, it would be foolish to say that simply borrowing a more books will fetch better grades.

Introduction

Reading has at all times and in all ages been a great source of knowledge. Today the ability to read is highly valued and very important for social and economic advancement. In today's world with so much more to know and to learn and also the need for a conscious effort to conquer the divisive forces, the importance of reading has increased. Through reading reader can expose him/herself to new things, new information, new ways to solve a problem, and new ways to achieve one thing. Through reading, you begin to have a greater understanding on a topic that interests you. Books help us for getting thoughts, ideas, experiences, reviews and feedback from other people. This can make a big impact on your next decision. By reading, you are exploring a different angle to see a thing you've known, on how different action leads to different results. There are many people who love reading but cannot afford to buy books. So when one becomes member of library he/she can borrow valuable books. Declining reading habits of students is a common phenomenon in almost all countries.In the era of technology, every student around the world is mostly dependent on internet based resources. From KG to PG, it is general observation that nowadays students are more attracted to E-learning systems which are easily available at any point of time. Thus students are becoming reluctant to actually borrow books from the library and use them physically for reading or learning purposes. With an emergence and integration of IT, many predicted that the library would become obsolete. Once the student had an option of using their computers/laptops anywhere on campus through wi-fi facility or their residence or in a garden or while travelling, why would they need to visit and borrow books from the library?

Objectives of the study
- To categorize student as per book borrowing habits from the institute library.
- To reveal the relationship of book borrowing habits from the institute library and the grades achieved at the end of the each semester.
- To check out the library usage by the student.

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Research methodology

- The samples of 338 passed out students of 2011-13 and 2012-14 batches of MMS for four semesters are used for this research.
- The primary data collection is done from the records of the institute library and office
- Hypotheses are stated for every semester & tested with the chi square (χ^2) to understand the association between the variables i.e. students book borrowing habit and grades.
- Various related research paper, reports, etc. are reviewed for the understanding of available literature.

Research hypothesis

For Sem I:

Null Hypothesis $H_{0(Sem\ I)}$: Grades are not associated with the habit of average number of books borrowed by the student during the MMS Semester I.

Alternate Hypothesis: $Ha_{(Sem\ I)}$: Grades are associated with the habit of average number of books borrowed by the student during the MMS Semester I.

For Sem II:

$H_{0(Sem\ II)}$: Grades are not associated with the habit of average number of books borrowed by the student during the MMS Semester II.

$Ha_{(Sem\ II)}$: Grades are associated with the habit of average number of books borrowed by the student during the MMS Semester II.

For Sem III

$H_{0\ (Sem\ III)}$: Grades are not associated with the habit of average number of books borrowed by the student during the MMS Semester III.

$Ha_{(Sem\ III)}$: Grades are associated with the habit of average number of books borrowed by the student during the MMS Semester III.

For Sem IV

$H_{0(Sem\ IV)}$: Grades are not associated with the habit of average number of books borrowed by the student during the MMS Semester IV.

$Ha_{(Sem\ IV)}$: Grades are associated with the habit of average number of books borrowed by the student during the MMS Semester IV.

For final CGPA

$H_{0(CGPA)}$: Grades are not associated with the habit of average number of books borrowed by the student during MMS course.

$Ha_{(CGPA)}$: Grades are associated with the habit of average number of books borrowed by the student during MMS course.

Literature review

Pioneering research was done in the 1960s by Kaufman who studied library borrowing records in Britain, for identifying the most popular books throughout the entire period.Those students who more frequently use the library reflect the studious work ethic & engage in academically challenging tasks that require higher order thinking (Kuh & Gonyea, 2003)

The performance appraisal system in educational institutions should be refurbished in such a way that encourages extensive reading. In this way, the students who read extensively will receive

good grades rather than those who simply memorize. Library visit and people's reading habit are closely interlinked. (Akanda et al., 2013)

Stephen Krashen(1993) studies summarizes that indicate the power of reading. Research results have shown that reading contributes to improvement of vocabulary, spelling, writing style, reading comprehension, and of grammatical development.

It will be beneficial to have a record of students reading habits in order to make predictions about their academic success in the study. For effective promotion of reading habits, skills and culture, reading must be made pleasurable and voluntary. (Kumar D et al., 2010)

The Pew Research Center's Internet & American Life Project has taken a special look at readers between the ages of 16 and 29. This report examines how teenagers encounter and consume books in different formats. It flows out of a larger effort to assess the reading habits of all Americans ages 16 and older as e-books change the reading landscape and the borrowing services of libraries. Many of the respondents said that they are reading more in the era of digital content, especially on their mobile phones and on computers. In an another report by Pew Research Center concluded that the increasing availability of e-content is prompting some to read more than in the past and to prefer buying books to borrowing them. People prefer e-books to printed books when they want speedy access and portability.Having less time/interest in books and reading in general was also the most commonly given reason for borrowing fewer books from the library. (Library & Information Commission Research Report, Britain, 2000).Motivations to read were largely internal. Responses indicate that motivation for reading was primarily driven by cognitive needs. Analysis of the reading profile of a selected group of Generation X indicated that television watching and internet surfing were among the top activities. The preference for television and internet-related activities shifted them away from reading (Chaudhry & Low, 2009)

Data analysis

- Out of 338 student samples, 4 students could not complete the course and left the institute in between. Hence these samples are rejected from all semesters. Hence actual samples considered are 334.
- Data about the number of books borrowed from the institute are analyzed student-wise and semester-wise.
- The average book borrowing is considered for dividing students into two groups for each semester such as
  - ✓ Above Average Borrower
  - ✓ Below Average Borrower
- The average number of books borrowed from the institute library are as follows:

Semester	Total No of Books Borrowed	Approx. Average No. of Borrowings / Semester
Sem I	4728	14.16 (Say 15)
Sem II	3317	9.93 (Say 10)
Sem III	3291	9.85 (Say 10)
Sem IV	956	2.86 (Say 3)
Total	12292	36.80 (Say 37)

- The grades are grouped in three groups such as

- ✓ Better Grades (O & A),
- ✓ Average Grades(B & C)
- ✓ Poor Grades(D, E &F)

- For 2011-13 batch students, percentages of marks are converted as grades as per present grading system of University of Mumbai for post graduate courses.

Sem I

Sem II

Sem III

Sem IV
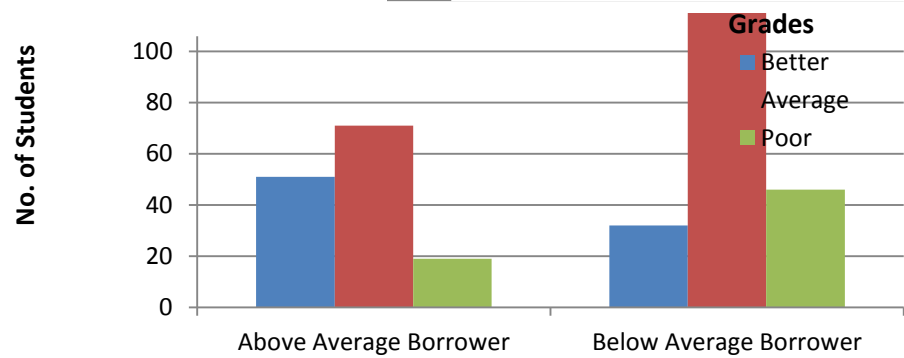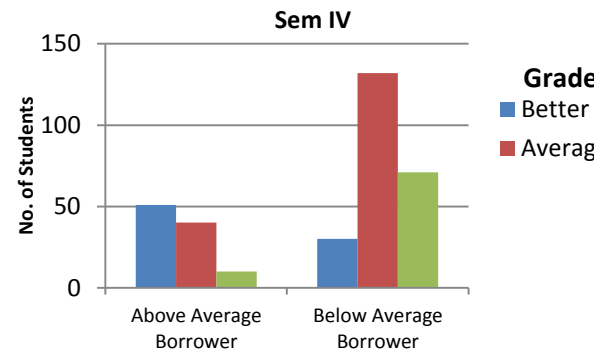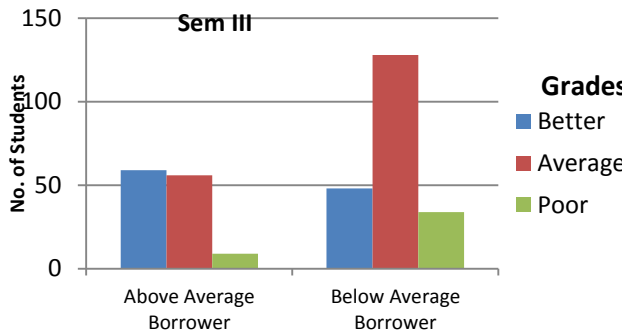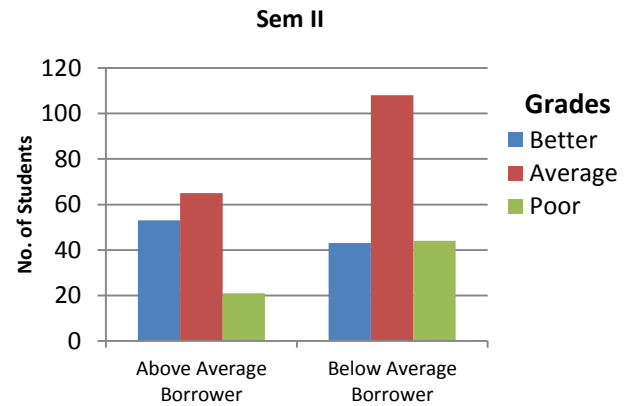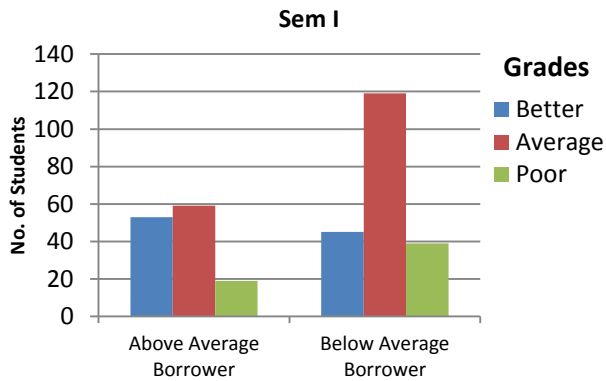
	Books Borrowed/ Semester	No. of Students Fo (Fe)			Total
		Better Grades	Average Grades	Poor Grades	
Sem I	Above Average Borrower	53 (38.44)	59 (69.81)	19 (22.75)	131
	Below Average Borrower	45 (59.56)	119 (108.19)	39 (35.25)	203
	Total	**98**	**178**	**58**	**334**
Sem II	Above Average Borrower	53 (39.95)	65 (72)	21 (27.05)	139
	Below Average Borrower	43 (56.05)	108 (101)	44 (37.95)	195
	Total	**96**	**173**	**65**	**334**
Sem III	Above Average Borrower	59 (39.72)	56 (68.31)	9 (15.96)	124
	Below Average Borrower	48 (67.28)	128 (115.69)	34 (27.04)	210
	Total	**107**	**184**	**43**	**334**
Sem IV	Above Average Borrower	51 (24.49)	40 (52.01)	10 (24.49)	101
	Below Average Borrower	30 (56.51)	132 (119.99)	71(56.51)	233
	Total	**81**	**172**	**81**	**334**
Final CGPA	Above Average Borrower	51 (35.04)	71 (78.52)	19 (27.44)	141
	Below Average Borrower	32 (47.96)	115 (107.48)	46 (37.56)	193
	Total	**83**	**186**	**65**	**334**

Observed (Expected) Frequency of Number of Students: Calculations of Chi Square (χ^2):

Semester	Books Borrowed/ Semester	F^2o/Fe			Total	Chi Square (χ^2)
		Better Grades	Average Grades	Poor Grades		
Sem I	Above Average Borrower	73.080	49.861	15.869	138.810	
	Below Average Borrower	33.998	130.895	43.147	208.040	
	Total				**346.851**	**12.851**
Sem II	Above Average Borrower	70.309	58.683	16.303	145.295	
	Below Average Borrower	32.990	115.482	51.016	199.487	
	Total				**344.782**	**10.782**
Sem III	Above Average Borrower	87.628	45.907	5.074	138.610	
	Below Average Borrower	34.247	141.622	42.758	218.627	
	Total				**357.236**	**23.236**

	Above Average Borrower	106.189	30.762	4.083	141.034	
	Below Average Borrower	15.928	145.214	89.212	250.354	
Sem IV	**Total**				**391.388**	**57.388**
	Above Average Borrower	74.232	64.199	13.156	151.587	
Final CGPA	Below Average Borrower	21.351	123.047	56.337	200.735	
	Total				**352.322**	**18.322**

Semester-wise Hypothesis Results:

Semester	Calculated χ^2	Null Hypothesis (H_0)	Alternate Hypothesis(Ha)
Sem I	**12.851**	Rejected	Accepted
Sem II	**10.782**	Rejected	Accepted
Sem III	**23.236**	Rejected	Accepted
Sem IV	**57.388**	Rejected	Accepted
Final CGPA	**18.322**	Rejected	Accepted

Interpretation of data analysis

- Calculated values of $\chi2$ are much more than the table value of χ^2 i.e. **5.991** at 5% significance and 9.210 at 1% significance with 2 DOF in all the semesters and for final CGPA.
- This calculated value cannot be said to have arisen just because of chance. It is significant. Thus null hypothesis (H_0) does not hold good and hence rejected.

- Hence, alternative hypotheses (Ha) for all semesters can be accepted stating that **'*Grades are associated with the habit of average number of books borrowed by the student during all the Semesters*'.**

- There is a significant association between the grades achieved and the number of books

Degree of Freedom (DOF) = (2-1)(3-1)	**2**
Table Value of χ^2 at 2 DOF & 5% significance	**5.991**
Table Value of χ^2 at 2 DOF & 1% significance	**9.210**

borrowed from the institute library by the student.

Limitations of the Study

- The study is based on the assumption that student refers only institute library books for their study and their grades are dependent on these books.
- References used from other sources are not considered for achieving the grades.
- Daily basis issue/return is not registered in the issue register.
- Many student study in a group with a books borrowed by single student which is also not considered.
- The restriction on the student to use institute library is also not considered.

Conclusion

- There is aneed to read more to broaden students understanding of the world where they live in. Reading satisfies additional needs of the student to cope up the challenges.
- Library usage must be viewed with a new perspective and understanding, if it is to fulfill its potential in adding value to the advancement of the institution's academic mission and in moving with that institution into the future.
- The integration of IT has actually become the catalyst that transforms the library into a more vital and critical intellectual center of life at colleges and universities today.
- The habit of borrowing books can create positive attitudinal changes in the mind of the borrower and may motivate to refer and read books, which may be possible reason to achieve better grades.
- Though, grades shows significant association with the habit of books borrowing, it would be foolish to say that simply borrowing more books will fetch better grades.

References

- *Aina, A.J. et al.(2011); "Poor Reading Habits Among Nigerians: The Role of Libraries. ; Library Philosophy and Practice.*
- *Akanda, A. K. M. Eamin Ali , et al. (2013);"Reading habit of students in social sciences and arts: A case study of Rajshahi University"; Chinese Librarianship: an International Electronic Journal, 35.pp 60-71*