# More Loans = Better Grades: An Analysis Correlating Library Usage and Unit Grades

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Abstract

In response to the question, "Does the number of books checked out by a student correlate with higher grades?" this analysis looks at student grades for both HE (Higher Education) and VET (Vocational Education & Training) units and the number of average library loans borrowed whilst achieving those grades. It was found that, on average and in general, more loans results in better grades.

Note: Data for student grades and library borrowing was taken from 2013, but it is believed that the principles demonstrated by the apparent correlation between loans and grades achieved would be comparable across any year. The 2013 data did not include ebook access so this could be another level of comparison for future research into this area.
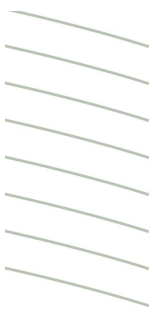
Background

A recent conference paper (Keck 2013) asked the question, "Does the number of books checked out by a student correlate with higher grades?" This question prompted me to think that this is something I'd like to know with regards to Harvest Bible College.

At Harvest, library use is changing due to the library no longer being 'down the hallway' from classrooms. Patrons no longer call in to look at something, they have to make the specific decision to organize a visit to the library, set aside time and make the effort to come in. It seems the 'call into the library to check something on the way past' mentality of the past is now long gone.

"Does the number of books checked out by a student correlate with higher grades?"

More students are now studying with Harvest in an online capacity, either wholly or partially online (almost three-quarters of all HE units in Semester 1 2014 were online). This means that patrons are likely to not even be located in the same city as the library, let alone close enough to visit regularly. How the library responds to this is likely to impact on student grades into the future. An increasing number of ebooks are being purchased to provide access to valuable resources no matter where the student is located. Ebook usage has gradually increased and continues to do so.

This analysis looks at HE and VET units studied in face-to-face mode across 2013. Student identities have been removed to protect privacy, but grades and borrowing numbers are accurate.

Brief Literature Review

Over recent decades, there have been numerous studies into the correlation between library use and grade achievement. Many of the studies are far more detailed and in depth than
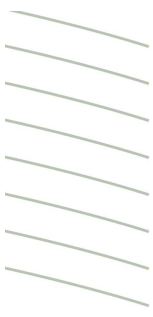
this overview focusing on Harvest Bible College, however, the findings of previous studies indicate a similar result.

An internal study from the University of Huddersfield "suggests a strong correlation between library usage and degree results" (Stone, Pattern & Ramsden 2011, 5); however this relationship is not a causal one (Stone & Ramsden 2013, 546). Soria, Fransen and Nackerud (2013, 147) published as recently as April 2013 that their study found that "students who use the library have a higher grade point average (GPA)".

Davidson, Rollins and Cherry's (2013, 74) research demonstrates "the impact that the library has on student success" when electronic resources are considered and this could be an area for further research for Harvest Bible College, and others.

Inclusions

Data was collated for 2013 (Semesters 1 and 2 HE and Terms 1-2-3-4 (VET) from the student management system, Paradigm. Library circulation history data was collated for the same period from the Koha Library Management System (LMS). An analysis of the correlation between grades achieved and circulation history for any further back than 2013 is not possible due to the Koha LMS only being implemented in February 2013. Circulation history data prior to that date is unavailable.

"Students who use the library have a higher grade point average"
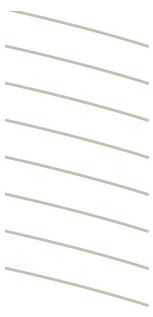
Method

To start, on-campus units were identified from archived timetables and listed in an excel spreadsheet. Next, students attending those classes, and their overall unit grades achieved for each unit undertaken in each semester of 2013 were added. Students who withdrew from a unit or failed were not included in the list. Library circulation history was then added with the number of items borrowed by each student added to the table. Student names were then removed and the list order jumbled to avoid accidental identification.

Once the lists were anonymised some analysis could take place. Firstly, it was calculated how many of each grade level were achieved in each semester/term.

HE Analysis

Grade	# Achieved
HD	11
D	45
C	31
P	12

HE Semester 1 2013

Grade	# Achieved
HD	18
D	39
C	21
P	18

HE Semester 2 2013

Then the number of loans for each grade achieved was added to allow for the average loans per grade to be calculated.

Grade	Average Loans
HD	18
D	12
C	12
P	10

HE Semester 1 2013

Grade	Average Loans
HD	10
D	9
C	11
P	9

HE Semester 2 2013

Note: average figures were rounded up/down to the nearest whole number

Masters (MA) students were analysed in the same way with results mirroring the general HE population, except for C grades in semester 2.
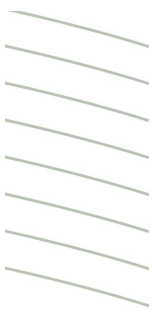
Grade	# Achieved
HD	6
D	12
C	10
P	6

HE MA Semester 1 2013

Grade	# Achieved
HD	7
D	9
C	3
P	1

HE MA Semester 2 2013

Grade	Average Loans
HD	11
D	6
C	4
P	7

HE MA Semester 1 2013

Grade	Average Loans
HD	9
D	6
C	10
P	0

HE MA Semester 2 2013

VET Analysis

The same method was utilized for VET analysis, but the period covered was divided into four terms, rather than two semesters.

Grade	# Achieved
HD	33
D	22
C	11
P	10

VET Term 1 2013

Grade	# Achieved
HD	26
D	20
C	12
P	16

VET Term 2 2013

Grade	# Achieved
HD	21
D	36
C	22
P	7

VET Term 3 2013

Grade	# Achieved
HD	20
D	25
C	13
P	17

VET Term 4 2013
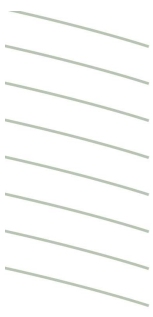
Grade	Average Loans
HD	1
D	1
C	3
P	1

VET Term 1 2013

Grade	Average Loans
HD	2
D	2
C	2
P	1

VET Term 2 2013

Grade	Average Loans
HD	5
D	3
C	3
P	2

VET Term 3 2013

Grade	Average Loans
HD	2
D	1
C	2
P	1

VET Term 4 2013

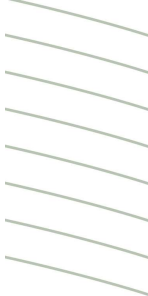*Note: average figures were rounded up/down to the nearest whole number*

It should be noted that although VET units achieve a C-Competent or NYC-Not Yet Competent mark, actual grades achieved are recorded as part of the way Harvest Bible College functions. This is useful with regards to upholding excellence (i.e. motivating the student to perform to a high standard), to assist with their personal development (growth) and to assist those transitioning from VET to HE (course progression). This assists our and other institutions to evaluate the student's level of academic ability.

Due to VET's emphasis on practical training, rather than in-depth academic research and analysis as is required for HE, the average number of loans per grade is much lower than HE results; however the same generalisation still applies: more loans equals higher grade achievement. Library usage for VET students, whilst important and encouraged, is not always expected as it is for HE.

Analysis Limitations

This analysis is, at its best, limited as there are a number of unknowns that cloud the data.

It must be noted that it is impossible to tell for which unit items had been borrowed. Also, students studying more than one unit during the period covered will have multiple entries in the table with the same circulation data listed for each unit.

From this data, there is no way of knowing a student's access to other materials from outside the library collections; nor does it take into account the reason for borrowing the material in the first place – research, general interest, leisure etc.

Another limitation of this analysis is there is no way of knowing if the material borrowed was actually used for assessments, or if it remained unused for the borrowing period.

Overall, this comparison is very general, but it is believed that further in-depth analysis could provide more reliable proof that library use equals higher grades.

Results

It can be seen from the analysis above that, in general, the number of loans does correspond to better grade achievement. More loans = better grades. Of course, it must be remembered that the loans themselves are not the driving force behind a better grade – it is the use of those loans, integration of and interaction with those loans in the assessments that lead to better grade achievement.

Bibliography

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