

A CORRELATION STUDY BETWEEN IQ AND ACADEMIC PERFORMANCE OF BSHM STUDENTS

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Abstract

The major problem of this study was to determine the relationship between BSHM students' intelligence quotient and their academic performance. The study made use of the descriptive-correlational method of research in which standardized instruments were the primary data gathering tool. The respondents of the study were selected BSHM students from a private Catholic university in Malolos. The data were presented using tables and the results of the study were tabulated and processed using Statistical Packages for Social Sciences (SPSS). The study revealed that the BSHM students' intelligence quotient was below average (77.46). Below average mean was manifested by the following namely: 55% - below average, average; 32% - Average; 11% - Low; and 2% - Above. Moreover, the BSHM students' academic performance was 1.60 (Proficient). The proficient mean was manifested by the following percentages: 36% - Accomplished; 31% - Proficient; 20% - Emerging; 11% - exemplary; and 2% - Beginner. The findings of the study indicated that the students' intelligence quotient was not positively related to students' academic performance.

Keywords: Students, IQ, Core Subjects, Academic Performance, BSHM.

Introduction

Cognitive or intelligence quotient (IQ) is defined as a general mental capability involving reasoning, problem solving, planning, abstract thinking, complex idea comprehension like reading and vocabulary, and learning from experience. Scholastic abilities are measures of one's scholastic competence. It plays an important role in achieving one's academic goal. IQ is brain-based skills, which an individual need to carry out any task from the simplest to the most complex. It is somehow related to the mechanisms of how an individual learn, remember, problem-solve, and pay attention, rather than with any actual knowledge. For instance, answering the telephone involves perception- hearing the ring tone, decision taking- answering or not, motor skill- lifting the receiver, language skills- talking and understanding language, social skills- interpreting tone of voice and interacting properly with another human being (Gottfredson as cited on Volodina, 2015).

Education is instrumental for the progress of a certain country, most especially in developing countries like Philippines wherein majority of its nationals' falls under school age (Edudata series, 2017). It ensures human growth. It also serves an avenue where an individual acquired, hone and improved their knowledge and skills. Whilst, it increases productivity and eventually lead towards economic growth of one's country (Saxton as cited on Lansangan, et. al, 2015). Education is the key

and considered as an important factor in the growth and development of one's country (Battle and Lewis, 2002).

It is being assumed that those individual with high scholastic abilities, would yield good academic performance. On a study conducted by Battle and Lewis (2002), it was revealed that there were meaningful or positive relationships between the students' IQ and students' academic performance. Moreover, reasoning ability, both verbal and non-verbal had the largest impact on academic performance. Furthermore, Intelligence or intelligence quotient is the strongest predictor of academic achievement, with correlations ranging from .30 to .70 (Roth, et.al, 2015).

On a similar study conducted by Boulanger, as cited on Roth, et.al, (2015) a significant influence on the strength of the relationship between intelligence quotient and school grade performance was revealed.

Contrary to this, Freund (2007) point out that intelligence quotient has no stable relationships on students' academic performance.

It is deemed necessary to conduct a study that will determine the relationship between intelligence quotient of the students and their academic performance.

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The findings of the study can help institutions identify the IQ profile and the academic profile of BSHM students. More specifically, the present study can help prescribe insights that would improve the profile of students, which is seen to be beneficial for the institution and students.

Statement of The Problem

The present study aims to determine relationship between students' scholastic ability and students' academic performance in their core subjects. The study also aims to answer the following specific questions.

1. What is the level of BSHM students' intelligence quotient?
2. How can the academic performance of BSHM students be described?
3. Does intelligence quotient exert significant relationship on academic performances of BSHM students?

4. What implications may be drawn in light of the findings of the study?

Methodology of The Study

Methods and Techniques

The descriptive-correlational method of research was utilized in this study to determine the relationship between students' intelligence quotient and students' academic performance in. Correlational research is a systematic investigation of the relationship present between two or more variables. The study used a quantitative research approach in analyzing and understanding the predictor and criterion variables. Standardized test on Students' scholastic ability were used as primary data gathering tools.

Respondents of the Study

Table 1: Respondents of The Study

Year Level	Population	
	N	Sample n (63.93%)
1	74	47
2	116	74
3	11	7
4	18	12
Total	219	140

Table 1 shows the respondents of the study. From the total population of 219, a 63.93% or 140 were the respondents of the study.

The study Utilizes Raosoft sample size calculation with the following standards: The margin of error of 5% and confidence level of 95%. A Raosoft sample calculator is basically software that primarily calculates or generates the sample size of a research or survey.

Instruments of the Study

The study adopted the Otis Lennon School Ability Test (OLSAT) with a Cronbach's alpha ranging from 0.70 to 0.80. OLSAT is a paper and pencil test administered for 45 minutes is given. The test consists of 72-item multiple choice that measures reasoning skills with different types of verbal, non-verbal, figural and quantitative reasoning questions.

Results and Discussion

Level of BSHM Students' Intelligence Quotient

Table 2: BSHM Students' Intelligence Quotient

Indicators	BSHM	
	Frequency	Percentage
Superior	0	0%
Above Average	3	2%
Average	45	32%
Below Average	77	55%
Low	15	11%
Mean	77.46 (Below Average)	
Std. Deviation	3.8788	

Table 2 shows that the over-all weighted mean intelligence quotient of BSHM students is below average (77.46). Below average mean was manifested by the following namely; 55% - Below

average, average, 32% - Average, 11% - Low and 2% - Above.

Students' Academic Performance

Table 3: BSHM Students' Academic Performance

Indicators	BSHM	
	Frequency	Percentage
1.00-1.24 (Exemplary)	15	11%
1.25-1.49 (Proficient)	43	31%
1.50-1.74 (Accomplished)	52	36%
1.75-1.99 (Emerging)	28	20%
2.0 - 3.00 (Beginner)	3	2%
3.00 below(Failed)	0	0%
Total	140	100%
Mean	1.60 (Accomplished)	
Std. Deviation	.21541	

Table 3 depicts that the over-all mean of the BSHM students' academic performance of is 1.60 (Accomplished)). The proficient mean is manifested by the following percentages; 36% -

Accomplished, 31% - Proficient, 20% - Emerging, 11% - exemplary, and 2% - Beginner.

Effects of intelligence quotient on BSHM students' academic performance

Table 4: Correlation Analysis of Students' Intelligence Quotient on Academic Performance

Factor	Pearson r	P-value	Interpretation
Intelligence quotient	.783	.450	Not Significant

The present study utilized Pearson-r Correlation Test to describe the relationship between intelligence quotient and BSHM students' academic performance. Findings of the correlational test revealed that intelligence quotient and academic performance were not correlated ($r=0.783$; $p<0.5$).

According to Freund (2007), Intelligence quotient has no stable relationships on students' academic performance. Moreover, Intelligence quotient has no relation whatsoever with academic performance of students. Students with average IQ can fare well in studies. Conversely, above average students may not get the grades expected of them (Kulkarni, 2010).

Implications

The results of the study explored the relationship of students' intelligence quotient and their academic performance. It has been articulated in the present study that intelligence quotient does not yields positive relationship on students' academic performance.

The aim of the study is to discover new ideas in improving students' academic performance. Considering the results, it is recommended that the future studies consider creating another correlation study on academic performance to depict the other factors that affects academic performance of BSHM students. The study can also provide suggestions on what BSHM students specifically needs to improve their academic performance and eventually achieved their academic goal.

Factors that might be considered as variable to the correlation study that might gauge tangible effects on academic performance are the following:

- Social Integration in School is students' experiences about the values and practices related to school wide events. According to Niemi (2017), School wide events can be valuable for creating social integration, but the negative aspects of school community may also culminate during these occurrences.
- School environment fulfill students' needs and promote their engagement more effectively than others do. It is broadly characterized by its facilities, classrooms, school-based health supports, and disciplinary policies and

practices. It sets the stage for the external factors that affect students.

- Learned resourcefulness are collection of skills an individual have acquired either formally or informally to cope during difficulties. People respond using their learned resourcefulness skills when they are confronted with difficulty and stressful events in their lives (Carver, C. S., 2013).
- School support and programs are the programs and services given by the educational institution to the students. Its main purpose is to ensure the student's growth and development during the academic experience.

Recommendations

In light of the findings of the study, the following recommendations are put forth.

1. Students' intelligence quotient for BSHM students should not be the mere and only basis for admission. Educational institutions must explore other parameters that they can adapt in their admission criteria. Admission criteria for students should clearly identify prospective students who show reasonable capability for success in the program they have chosen.
2. Each educational institution must provide programs and services that would cater to the specific need of BSHM students in able for them to easily adapt in the program and achieved academic goal.
3. Future researchers can explore more dimensions of students' academic performance of BSHM students. The current study has generated a general picture of the relationship of intelligence quotient and academic performance, but more studies maybe needed to depict other factors that affect academic performance of BSHM students.

Conflict of Interest

There is no conflict of interest between the authors in this manuscript.

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