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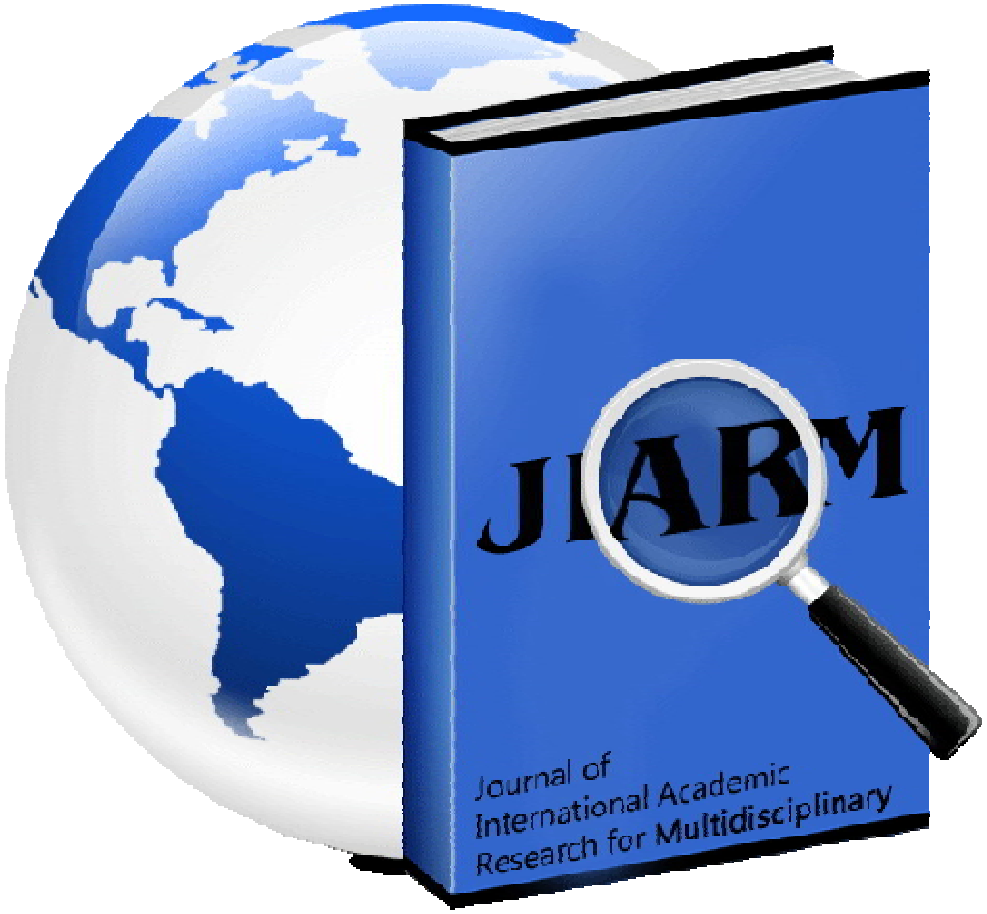

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CORRELATING THE PERFORMANCE IN NAVIGATION II COURSE OF BS MARINE TRANSPORTATION STUDENTS WITH SOCIO-ECONOMIC AND INTELLECTIVE FACTORS

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ABSTRACT

The study focused on correlating the performance in Navigation II (Terrestrial Navigation II) of Marine Transportation students with the socio-economic and intellective factors. The participants of the study are the 50 second year Marine Transportation students who are taking Navigation II (Terrestrial Navigation II). Descriptive type of research method was utilized in the study. Grades in Navigation II have high direct correlation with Final grades in Trigonometry and College Algebra while moderate correlation in time spent for studying as well as the study technique and low positive correlation in family monthly income and parents' status.

KEYWORDS: Academic Performance, Maritime, Socio-Economic, Intellective Factors

INTRODUCTION

Education is a process by which man transmits his experiences, new findings, and values accumulated over the years, in his struggle for survival and development through generations. Education enables individuals and society to make an all round participation in the developmental process, by acquiring knowledge, ability, skills and attitudes. Every learning process involves participation in activities that contribute to the process of changing behavior

Few people will argue with the premise that attending college can have a profound effect on one's life. In fact, Filipinos view education as an individual need and prerequisite to a successful adult life. Going to college then was an intellectual privilege reserved for the upper strata of the society, but now, as we approach the 21st century, college has become less of an option. Through education, an individual accumulates knowledge and develop skills, habits and attitudes which build up his productivity and employability and ensure his contributions to the society.

A college degree, in a sense, stands as a foundation for a career and to acquire it, one must be able to tackle the challenges posed by the various areas of the tertiary curriculum. As one moves from high school to the tertiary level, some adjustments need to be made. The transition experienced by students poses anxieties, difficulties, and problems which affect them and their studies.

In addition to all these, a college student is expected to have greater independence in thought and action and many would like to treat her/him as an adult; yet, he/she is still unprepared to assume the role. In fact, many students feel lost in college. Some even express that they receive little or no direction and encouragement from others and that some teachers are indifferent to their adjustment difficulties. Whatever situations they may be into test how much they have achieved from the previous education given to them. If they are unable to rise above the pressures and difficulties that they face, they suffer academic failure especially in their major subject.

Psychologists and educational experts have conducted studies on factors related to academic achievement and they have identified numerous reasons for students' success. Social and intellective factors can greatly affect the students learning.

The school, as an organized entity in facilitating learning and growth is expected to address these needs in order to produce graduates who think and feel critically and are creative, productive individuals with a sense of personal worth and belief that they have a place in the society in which they live. Yet in practice, there are instances when schools do not produce young people who behave in these ways. In fact, our most serious educational problem is the failure of the young people to profit from schooling in ways which are constructive and of value to themselves

There are several factors which significantly correlate with academic success especially in Major subject. The different student-related factors like personality traits, problem-related reasons, time management, self-esteem and test anxiety were also found to be contributory factors to performance of students. The environment characteristics included the institutional characteristics, peer group, faculty, and curriculum. The present study concentrated on specific causes which were grouped into socio-economic and intellective factors.

The researchers want to determine the different factors that can affect the performance of the students in their major subjects. It is also the researchers' strong

belief that this study can contribute to the improvement of the instruction in Navigation.

Statement of the Problem

This study attempted to correlate the performance in Navigation II (Terrestrial Navigation II) of Marine Transportation students with the socio-economic and intellective factors.

Specifically, the study was guided by the following objectives:

1. To determine the profile of the respondents in terms of:
   1.1 socio-economic factors
      1.1.1 boarding status;
      1.1.2 parent's educational attainment;
      1.1.3 family's monthly income;
      1.1.4 parents' status
   1.2 intellective factors
      1.2.1 Midterm Grade in Navigation II;
      1.2.2 final grade in Trigonometry;
      1.2.3 final grade in College Algebra;
      1.2.4 time spent for studying;
      1.2.5 favorite subject;
      1.2.6 student techniques
2 To analyze the correlation of the students' academic performance in Navigation II to the following variables:
   2.1 socio-economic factors; and
   2.2 intellective factors

Significance of the Study

The researchers considered this endeavor vital not only to her as major subject professors but also to the school community specifically the students, professors, as well as future researchers. As a pioneering effort, this can inspire other professors from varied disciplines to undertake parallel studies.

To the students, this study enables them to be concern of the factors that can really affect their academic performance.

For Marine Transportation professors, the knowledge of the specific areas of deficiencies will lead them to a conscientious and periodic evaluation of the courses of study to see the relevance of each area to the students' needs with the purpose of

modifying content. This will serve as an eye opener toward imbibing innovative ideas in teaching.

For future researchers, the study can help them conduct similar studies on the correlating the academic performance with the different factors

Research Design

The researchers use the descriptive survey method since the present study requires the collection of data in order to answer the questions concerning the present status of the subject and to determine and report condition of related things. It investigated the qualitative descriptions and characteristics of the groups under study and looked into the conditions that existed, the practices that prevailed and the beliefs that were going on in teaching Mathematics including the causal-effects that were felt by the subjects because of them.

Descriptive method is concerned with the conditions of relationship exist; practices that prevails; beliefs, point of view or attitude that are held; processes that are going on effects, that are being felt; or trend that are developing. At time it is concerned with how, what is or what exist is related to some proceeding event that has influenced on affected a present conditions on event. (www. res.edu.com)

The descriptive method was chosen by the researchers because this method seems to be the most appropriate since the purpose is to determine the student and environment related factors that predict the performance of students in SEA I(Ship and Ship Routines)

Correlating the performance in (Terrestrial Navigation II) of Marine Transportation students with the socio-economic and intellective factors is the subject of the study. The researchers used the purposive sampling in determining the number of samples. The researchers used the simple random sampling to determine the sample in each section. It is the simplest process of probability sampling. This is the technique of obtaining the sample by giving each member of the population an equal chance of being included in the sample (Panopio, 2004).

Participants

A total of 50 students from seven (7) sections who are enrolled in NAVI II (Terrestrial Navigation II) during the first semester of the School Year 2012-2013 responded to the survey of questionnaire.

Instrument

A self-administered questionnaire and interviews was drawn up to obtain the data for this study. The questionnaire is divided into two (2) parts. Part 1 is composed of the socio-economic factors of the respondents;. boarding status,. Parents' educational attainment, family's monthly income and parents' status

Part II is composed of the intellective factors; Midterm Grade in SEA I, final grade in MATH2A, final grade in MATH 1, time spent for studying, favorite subject and study techniques used by the students. The data gathered were recorded, organized, analyzed and interpreted in the view of the objectives set in the study

Data Analysis

After the collection of the questionnaire, the answers were tallied, tabulated and analyzed. After the answers to the survey question have been recorded different statistical treatment was used. The first step frequencies, percentage and weighted mean for all ten variables were obtained. The second step is the midterm grades in NAVI II (Terrestrial Navigation II) were regressed and correlate with the socio-economic and intellective factors.

Results and Discussion

Table 1 shows the frequency distribution of respondents' boarding status

Table 1

Frequency Distribution of Respondents' Boarding Status

Boarding Status	**f**	**%**
Apartment	3	6
Boarding house	21	42
Close relatives	2	4
Live at Own Home	24	48
Total	**50**	**100**

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These data may indicate that most of the students live at their own home and at the boarding house. From this information one may also presume that almost half of the participants in the study are free from many difficulties faced in by the students living in boarding homes.

Table 2 shows the frequency distribution of respondents' parents' educational attainment.

Table 2

Frequency Distribution of Respondents' Parents' Educational Attainment

Educational Attainment	Father		Mother	
	f	%	f	%
Post-Education graduate	2	4	4	8
Post-Education undergraduate	0	0	1	2
College graduate	14	28	19	38
College undergraduate	7	14	9	18
Vocational graduate	3	6	0	0
Vocational undergrad	3	6	0	0
High School graduate	12	24	8	16
High School undergrad	4	8	4	8
Elementary graduate	3	6	2	4
Elementary undergraduate	2	4	3	6
No formal schooling	0	0	0	0
Total	**50**	**100**	**50**	**100**

About 28 percent of the respondents' father and 38 percent of mother's are college graduate. The remaining groups are mostly college undergraduates and high school graduates. This is evidence that Filipinos give importance in providing their children with a college education despite the fact that they themselves not acquired one. It can be observed that more mothers than fathers are college graduate. This suggests that mothers have a great influence in sending their children in tertiary level

Table 3 shows the frequency distribution of respondents' family monthly income.

Table 3

Frequency Distribution of Respondents' Family Monthly Income

Family monthly income	F	%
50 000-above	2	4
40 000-49 999	1	2
30 000-39 999	7	14
20 000-29 999	17	34
10 000- below	23	46
Total	**50**	**100**

The distribution of family monthly income is roughly normal with the median falling 10,000 and below. This shows that most of the respondents belong to the lower middle class.

Table 4 shows the frequency distribution of respondents' parents' status.

Table 4

Frequency Distribution of Respondents' Parents' Status

Parents' Status	f	%
Married	44	88
Separated	1	2
Widowed	4	8
Single Parent	1	2
Total	**50**	**100**

About 88 percent of respondents' parents are married. It shows that having a complete family greatly affect the students' performance. Only one percent have separated parents and single parent.

Table 5 shows the frequency distribution of respondents' Midterm Grade in NAVI II.

Table 5

Frequency Distribution of Respondents' Midterm grade in NAVI II

Midterm Grade in NAVI II	f	%
99-100	0	0
96-98	0	0
93-95	2	4
90-92	4	8
87-89	8	16
84-86	6	12
81-83	6	12
78-80	12	24
75-77	3	6
74-below	9	18
Total	**50**	**100**

About 24 percent of the respondents have a grade 78 to 80 which is below average. This data should serve an eye opener to the Marine students. Navigation is part of the curriculum of Marine students. However, a large majority still find the subject difficult due to many factors both internal and external.

Table 6 show the frequency distribution of respondents' final grade in Math2A. The same pattern can be seen in the distribution in the Midterm grade in Navigation: The distribution of grades in Math 2A is below average and thee median obtained by the respondents is 2.75 and 3.0.

Table 6

Frequency Distribution of Respondents' Final grade in Math2A

Final Grade in Math 2A(Trigonometry)	f	%
1.00	0	0
1.25	3	6
1.50	4	8
1.75	6	12
2.00	9	18
2.25	3	6
2.50	7	14
2.75	9	18
3.00	9	18
Total	**50**	**100**

Table 7 shows the frequency distribution of respondents' final grade in Math 1.

Table 7

Frequency Distribution of Respondents' Final grade in Math 1

Final Grade in Math 1(Algebra)	f	%
1.00	0	0
1.25	3	6
1.50	3	6
1.75	5	10
2.00	8	16
2.25	10	20
2.50	6	12
2.75	8	16
3.00	7	14
Total	**50**	**100**

It is noted that 20 percent of the respondents falls at the median grade of 2.25. It shows that students have high intellectual skills in Algebra. Perhaps, the students find it easy compare to other subjects because it is just a review of their Math subject in High School.

Table 8 shows the frequency distribution of respondents' time spent for studying.

Table 8

Frequency Distribution of Respondents' Time Spent for Studying

Time Spent for Studying	**f**	**%**
1-2 hours	31	62
2-3 hours	14	28
3-4 hours	4	8
5-6 hours	0	0
others (less than one hour)	1	2
Total	**50**	**100**

About 62 percent of the respondents studied for about 1 to 2 hours and 28 percent studied at about 2 to 3 hours. It shows that the students allot at least one hour for studying their lesson.

Table 9 shows the frequency distribution of respondents' favorite subject.

Table 9

Frequency Distribution of Respondents' Favorite Subject

Favorite Subject	**f**	**%**
Major Subject	25	50
English	3	6
Mathematics	10	20
Sciences	4	8
Social Sciences	0	0
Filipino	0	0
PE	8	16
Total	**50**	**100**

It is noted that 50 percent of the respondents chose Major subject as their favorite subject. It shows that students exert extra effort to learn their major subject because they believe that this subject can greatly help on their future career.

Table 10 shows the frequency distribution of study techniques practiced by the Students.

Table 10

Frequency Distribution of Student Techniques Practice by the Students

	Very Often		**Often**		**Seldom**		**Rarely**		**Never**		**Total**	
Study Techniques	**f**	**%**	**f**	**%**	**f**	**%**	**f**	**%**	**f**	**%**	**WM**	**VI**
1. Reading some text before the session of the class	4	8	18	36	22	44	5.00	10	1	2	**3.38**	seldom
2. Recognizing key points when there are made in lecture	10	20	25	50	13	26	2.00	4	0	0	**3.86**	often
3.Comparing your notes after class	6	12	18	36	23	46	2.00	4	1	2	**3.52**	often
4. Testing yourself	9	18	20	40	15	30	6.00	12	0	0	**3.64**	often
5.Doing the assignments regularly	3	6	26	52	19	38	2.00	4	0	0	**3.60**	often
6. Taking notes during class hours	24	48	16	32	8	16	2.00	4	0	0	**4.24**	often
7. Studying hard at night	4	8	14	28	23	46	8.00	16	1	2	**3.24**	seldom
AVE											**3.64**	often

It can be noticed that students seldom read their text before the session of the class and study hard at night. They often recognize key points when there are made in lecture, compare notes after class, test themselves, do their assignments and take notes during class. In summary, students often used study techniques to learn their lesson.

Table 11 lists the Pearson r correlation coefficients representing the strength and direction of relationship between variable pairs.

Table 11

Correlation Coefficients

Factors	Midterm Grade in NAVI II	Verbal Interpretations
Boarding Status	0.41	moderate correlation
Educational Attainment(Father)	0.10	low positive correlation
Educational Attainment(Mother)	-0.07	very low/negligible
Family monthly income	0.14	low positive correlation
Parents' status	0.24	low positive correlation
Midterm Grade in NAVI II	1.00	very high/ significant correlation
Final Grade in Trigonometry	0.67	high direct correlation
Final Grade in College Algebra	0.63	high direct correlation
Time Spent for Studying	-0.42	moderate correlation
Favorite Subject	0.41	moderate correlation
Student Techniques	-0.46	moderate correlation

Grades in NAVI II have high direct correlation with Final grades in Math 2A, r=0.67 and Final grades in Math 1, r=0.63. These are indications that students who do well in Navigation subject similarly to do well in Math 2A and Math 1. Perhaps, it is a combination of high aptitude and positive attitudes that enable these high performing students to demonstrate achievement in class.

On the other hand those who did perform well in NAVI II class were also more likely to show poor performance in Math 2A and Math 1. Grades in NAVI II have moderate correlation with boarding status, r=0.41; time spent for studying, r=-0.42; favorite subject, r=0.41; and student techniques, r= 0.46.

These show that those who exert effort and time to study can affect the academic performance in their subject. Students also easily learn the subject which they like most. Grades in NAVI II have low positive correlation with father's education attainment, r= 0.10; family monthly income, r= 0.14; and parents' status, r= 0.24.It has a very low correlation with mother's educational attainment. These show that most of the socio-economic factors cannot greatly affect the academic achievement in NAVI II.

CONCLUSIONS AND RECOMMENDATIONS

The second year Marine students live in their own homes and with parents who are college graduate. The students often used study techniques to learn their major subject. Their grade in NAVI II, final grade in Math 2A and Math 1 are below average and have high direct correlation.

Complete information on students' socio economic background should be obtained from the parents to ensure validity of the data. A more complete model may be arrived at with the addition of other variables such as students and teachers attitudes and qualities with regards to their respective academic responsibilities. A replication of this study in other course or subject is suggested.

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