

# Determinants of Academic Performance in Physics of Fourth Year Students in the Catubig Valley National High School, Catubig, Northern Samar for the School Year 2006-2007

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## **ABSTRACT**

This study aimed to answer the following questions: Determine how each of the following factors, namely: study habits, peer group/barkada influence, family influence, textbook holdings, lack of interest in the subject had affected the academic performance of the students. Identify which of the identified factors had significantly affected the academic performance of high school students. The research design used in this study was the descriptive method using a questionnaire as the principal instrument in gathering the needed data. The respondents were the fourth year students of the Catubig Valley National High School, Catubig, Northern Samar during the school year 2006-2007. The findings of this study use the following: Most of the students (or 41%) would “sometimes” study their lessons, 31.33% would “rarely” study their lessons, and 26.66% had regular study habits. A significant majority (90%) of the students had barkada, only 10% did, not have barkada, 40% of the students would go out with their barkada on weekends and/or holidays, 33.33% of the students would go out during off-school hours, and 16.66% would go out with their barkada anytime even if they had classes. Majority (90%) of the students lived with their family, while the other 10% live with their guardian. Only 3.33% of the respondents had a monthly family income of P30,000.00 or more, 10% had monthly income of P15,000.00 to P19,000.00. 16.66% had a monthly family income of P10,000.00 to P14,000 00, 43.33% had a monthly income of P5,000 00 to P9,000 00, and 26 666 had an income of P5,000. 00 or below every month. Fifty percent of the students were badly affected by the family income every month, the other 50% declared otherwise. Majority (86.66%) of the students had a textbook of their own. Only 13.33%

shared a book with a classmate. Majority (63.33%) claimed that their performance in the subject was not affected by the textbook ratio; on the other hand, 36.66% said that their academic performance was affected by the textbook ratio. Majority (53 336) of the students occasionally liked the subject, 40% had moderate liking of the subject, while 6.66% had never liked the subject. Most of the respondents (45%) of them got a general average grade in Physics ranging from 80% to 85%, 24.12% obtained a general average grade between 85% to 89%, 20.83% obtained a general average grade range of 75% to 79%, a very small percentage (or 9.16%) obtained an average grade of 90% or above. The factor that affected most the academic performance in Physics of the students was their level of interest in the subject, while the factor that had the least effect is the book ratio.

**Keywords:** *academic performance, study holistic, per group, family influence*

## **1. Introduction**

The teaching learning process, as an art, is a two-way venture of the teacher and learner. Incidentally the failure of one means failure of the other. It is along this context that in order to achieve fruitful results of the endeavor, the teacher, considered the facilitator of the process, has to strictly abide by some relevant teaching principles and philosophies. It is often accepted that strict obedience to and implementation of these teaching principles and philosophies by the teacher shall eventually lead to the attainment of a specific teaching objective. The teacher all the way, utilizes every possible means and considers all potential factors so that failure on his /her part and that of the students may find no place in the endeavor.

Most psychologists define learning as any relatively permanent change of behavior which occurs as a result of practice or experience. True learning involves a process of self-discovery, exploration, and experimentation which stimulates powers and changes of development. In all instances, educational psychologists are one in saying that learning connotes changes in the performance of the learner. One of the simplest kinds of learning is habituation which occurs when someone becomes accustomed to a repeated stimulus and ceases to respond to it. Undeniably, learning comes in various ways. It involves the acquisition of new ideas and strategies while performance involves action on the basis of this new cognition in one way or another, any amount of academic performance affects the whole personality of the individual true learning is the development of the whole person. Factors have to be taken into account as far as academic performance of an individual is concerned. These factors may be found within the learner or outside of him. From every standpoint of learning, the individual learner remains an easy prey to various considerations such as the kind of study habits, his immediate environment, his strong will to learn, and many more. Every time the teacher enters the classroom for his/her regular teaching routine, he/she is often optimistic in bringing out favorable results from the students. She/he considers this particular endeavor successful if good learning performance of the students has been achieved. All the while, various factors that would affect the academic performance of the class should be meticulously considered, otherwise, the day's work of the teacher shall be futile. This study therefore, aimed to give answer to the question. What are the factors that affected the academic performance in physics of the fourth year students of the Catubig Valley National High School, Catubig. Northern Samar during the school year 2006-2007.

## 2. Objectives of the Study

Specifically, it answered the following questions:

1. How each of the following factors, namely:

- a. a study habits
- b. peer group/barkada influence
- c. family influence
- d. textbook holdings
- e. lack of interest in the subject

had affected the academic performance of the students

2. Identity which of the identified factors had significantly affected the academic performance of high school students.

## 3. Methodology

### Locale of the Study

This study was conducted at Catubig, Northern Samar, a municipality located at eastern portion of the province Catubig. Northern Samar is basically an agricultural community, most of whose populaces earn their living from rice and copra production. However, a significant percentage of the populations are professionals, most of whom are teachers. It has, within the poblacion, the University of Eastern Philippines-Catubig and the Catubig Valley National High School.

### Respondents

The respondents of the study were the fourth year students of the Catubig Valley National High School during the school year 2006-2007.

### The Variables

The independent variables were the factors that affected the academic performance in Physics of the Student-respondents during the school year 2006-2007. These variables include study habits, peer/barkada system, family background, textbooks and other school facilities, lack of interest in the subject. The variables were measured through the grades in Physics of the respondents during the school year 2006-2007. The dependent variable was the academic performance in Physics of high school students.

### Research Design

Study used the descriptive method of research. Questionnaires were given to the respondents. Solicited answers were analyzed and interpreted, relative to their grades in Physics.

### Research Instrument

Since the survey questionnaires were considered very appropriate instruments in deriving the essential data, substantial contents of the questionnaires were made and constructed carefully by the researchers in order to elicit the needed information. This study therefore used the researchers made questionnaires

### Population and Sampling

The respondents of this study were fourth year students of Catubig Valley National High School, Catubig Northern, Samar during the School Year 2006-2007. Since it was not possible for the

researchers to conduct personal interviews with the student-respondents, questionnaires were distributed to the respondents for them to answer individually. The respondents were chosen by means of simple random sampling.

#### Statistical Analysis of Data

The data of this study were analyzed using the frequency counts and percentages. Other statistical measures such as the mean and standard deviation were also used regular study habits.

#### 4. Results and Discussion

##### THE INDEPENDENT VARIABLES

##### A. Study Habits

The data herein showed that the study habits of the students have greatly influenced the academic performance of the students. It was reflected in the data that the better and more effective the study habits, the better their academic performance.

**Table 1 Respondents' Perceptions on the Study Habits**

Respondents' Study Habits	Regular		Sometimes		Rarely	
	N	%	N	%	N	%
1	14	46.66	11	36.66	5	16.66
2	12	40.00	14	46.66	4	13.33
3	13	43.33	11	36.66	6	20.00
4	1	3.33	16	53.33	13	43.33
5	9	30.00	14	46.66	7	23.33
6	7	23.33	12	40.00	11	36.66
7	2	6.66	13	43.33	15	50.00
8	7	23.00	12	40.00	11	36.66
9	9	30.00	11	36.66	10	33.33
10	6	20.00	12	40.00	12	40.00
Grand Mean	8		12.6		9.4	
Standard Deviation	4.03		1.65		3.69	
Percentage Mean	26.66		41.99		31.33	

##### B. Peer Group / Barkada Influence

Of the thirty (30) respondents, twenty seven (27) or 90% had barkada, while only three (3) or 10% did not have. On the other hand, twelve (12) or 40% would go out with their barkada during week-ends and holidays. There were ten (10) or 33.33% of the respondents who claimed going out with their barkada during off- school hours while five (5) or 16.66% would go out with their barkada even if they had classes.

**Table 2 Respondents' Responses on Peer Group/Barkada Influence**

Do you have a barkada?	Frequency	Percentage
YES	27	90%
NO	3	10%
TOTAL	30	100%
When do you go out with your barkada?	Frequency	Percentage
Anytime I feel going with them even if had classes	5	16.66%
During off- school hours	10	33.33%
During week - ends and holidays	12	40.00%
TOTAL	30	100%

##### C. Family Influence

Majority (90%) of the students lived with their family, while the other 10% lived with their guardian. Only 3.33% of the respondents had a monthly income of P30,000 or more, 10% had a monthly income of P15,000.00 to P19,000.00, 16.66% had a monthly family income of P10,000.00 to P14,000.00, 43.33% had a monthly income of P5,000.00 to P9,000.00 and 26.66% had an income of P5,000.00 or below every month. Fifty percent of the students were badly affected by the family income every month, the other 50% declared otherwise.

**Table 3 Respondents' Perceptions on Family Influence**

Whom do you live with at home?	Frequency	Percentage
With my parents together with my brother/s and/or sister/s	27	90%
With my guardians	3	10%
TOTAL	30	100%
What is your estimated family income per month?	Frequency	Percentage
P 30,000.00 or above	1	3.33%
Between P 25,000 and P 29,000	0	0.00%
Between P 20,000 and P 24,000	0	0.00%
Between P 15,000 und P 19,000	3	10.00%
Between P 10,000 and P 14,000	5	16.66%
Between P 5,000 and P 9,000	13	43.33%
P5,000.00 or below	8	26.66%
TOTAL	30	100%
Are your studies affected badly by your family's monthly income?	Frequency	Percentage
YES	15	50%
NO	15	50%
TOTAL	30	100%

**D. Textbook Holdings**

As far as the textbook ratio is concerned, of the thirty (30) students surveyed, twenty-six (26) or 86.66% of them claimed a once book to one student (1:1) ration. The other four (4) respondents or 13.33% admitted a one book to two students (1:2) ratio. When asked whether the level of their performance in Physics was affected by this ratio, eleven (1) or 36.66% answered yes, while nineteen (19) or 63.33% said no.

**Table 4 Students' Responses on the Textbook Holdings**

What is the Physics textbook ratio in your school?	Frequency	Percentage
One book to one students	26	86.66%
One book to two students	4	13.31%
One book to three students	0	0.00%
One book to more than three students	0	0.00%
TOTAL	30	100%
Is your level of performance in Physics affected by this ratio?	Frequency	Percentage
YES	11	36.66%
NO	19	61.33%
TOTAL	30	100%

**E. Students' Interest in the Subject**

Table 5 shows the level of interest of the students in the subject. It can be seen that out of thirty (30) student-respondents, twelve (12) or 40% of them moderately like the subject, while remarkably sixteen (16) or 53.3% claimed to have occasional liking in the subject. However, it must also be noted herein that two (2) or 6.66% of them never have liked the subject at all.

Unfortunately, no one of the respondents have signified extreme level of liking of the subject.

**Table 5 Students' level of interest in the subject**

How do you like Physics as a Subject?	Frequency	Percentage
Extremely	0	0.00%
Moderately	12	40.00%
Occasionally	16	53.33%
Never at all	2	6.66%
TOTAL	30	100%

Study habits affected the performance of the respondents academically. Of the thirty (30) respondents, 13.5 or 45% of them obtained a grade range of 80% to 84% while 9.16% got a grade range of 90% or above.

The frequency of study habits affected the academic performance of the students. Most of the respondents (12.6 or 41.99%) would only "sometimes" study their lessons, 9.4 or 31.33% "rarely" studied their lessons, and 8 or 26.60% would mind studying their lessons "regularly."

**Table 6 Respondents' Grade-Based Academic Performance**

GRADE RANGE	1st Grading		2nd Grading		3rd Grading		4th Grading		MG	MP
	f	%	f	%	f	%	f	%		
90% or above	2	6.66%	2	6.66%	0	0.00%	7	23.33%	2.75	9.16%
85% to 89%	5	16.66%	6	20.00%	9	30.00%	9	30.00%	7.25	24.17%
80% to 84%	15	50.00%	15	50.00%	12	40.00%	12	40.00%	13.5	45.00%
75% to 79%	7	23.33%	7	23.33%	9	30.00%	2	6.66%	6.25	20.83%
below 75% or Failure	1	3.33%	0	0.00%	0	0.00%	0	0.00%	0.25	0.83%

F – Frequency

% - Percentage

MG- Frequency Mean

MP- Percentage. Mean

GRADE RANGE	1st Grading		2nd Grading		3rd Grading		4th Grading		Total	
	O	E	O	E	O	E	O	E	O	E
90% or above	2	30	2	30	0	30	7	30	11	120
Failure	1	0	0	0	0	0	0	0	1	0
<b>Total</b>	<b>3</b>	<b>30</b>	<b>2</b>	<b>30</b>	<b>0</b>	<b>30</b>	<b>7</b>	<b>30</b>	<b>12</b>	<b>120</b>
85% to 89%	5	30	6	30	9	30	9	30	29	30
Failure	1	0	0	0	0	0	0	0	1	0
<b>Total</b>	<b>6</b>	<b>30</b>	<b>6</b>	<b>30</b>	<b>9</b>	<b>30</b>	<b>9</b>	<b>30</b>	<b>30</b>	<b>120</b>
80% to 84%	15	30	15	30	12	30	12	30	54	120
Failure	1	0	0	0	0	0	0	0	1	0
<b>Total</b>	<b>16</b>	<b>30</b>	<b>15</b>	<b>30</b>	<b>12</b>	<b>30</b>	<b>12</b>	<b>30</b>	<b>555</b>	<b>120</b>
75% to 79%	7	30	7	30	9	30	2	30	25	120
Failure	1	0	0	0	0	0	0	0	1	0
<b>Total</b>	<b>8</b>	<b>30</b>	<b>7</b>	<b>30</b>	<b>9</b>	<b>30</b>	<b>2</b>	<b>30</b>	<b>26</b>	<b>120</b>

## 5. Conclusions

Student cannot be expected to perform academically in a subject where his/her degree of interest is low. Students would rather miss their classes and would prefer to have dates with their barkadas. Study habits affected the academic performance in Physics of the respondents. The academic performance in physics had been affected accordingly by the factors identified in this study, though the level of interest of the students in the subject had the most effect, while the family factor affected least.

## 6. Recommendations

The level of interest of the students in the subject should be enhanced. The teacher, in this regard, can possibly help the student in their interest enhancement process. The students should develop in themselves the values of self-confidence, determination and

strong will to subdue their urge of going out with their barkadas even if they had classes. Teachers should be keen and alert once irregular study behaviors are spotted. The teacher may bring the problem to the attention of the parent concerned. A significant majority (27 or 90%) of the respondent. This could contribute to the level of academic performance of these students. There was a slight effect on the academic performance students as far as the family as a factor is concerned. Though most of them have a monthly income of between P5, 000 00 and P9, 000 00, fifteen (15) or 50% of them claimed that their studies were badly affected by the monthly income, while the other fifteen (15) or 50% stated negatively. On the other hand, twenty seven (27) or 90% lived with their parents, while only three (3) or 10% lived

with their guardian. The textbook as a factor had a little effect on the Academic performance of the students. This could be attributed to the fact that twenty-six (26) or 86.66% of them had a book, while four (4) or 13.33% shared one book with classmate. Majority of the respondents (16 or 53.33%) claimed occasional liking of the subject. Two (2) or 6.66% of them never liked the subject at all.

From all the data gathered, it can be deduced that the academic performance of the students had been affected by the students' level of interest in the subject. It had been noted that the respondents resorted more to going with their barkadas instead of attending the classes, thus resulting in ineffective study habits. One must have a high degree of interest in the subject in order for him/her to academically perform well.

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