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LEARNING STYLES, STUDY HABITS AND ACADEMIC PERFORMANCE OF NURSING STUDENTS

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ABSTRACT

College education is the gateway to getting a professional career and to enter the world of work with better pay and more chances of promotion. Fitting education to the learning styles and study habits of nursing students would rebound to their becoming master students and ultimately improved performance. Hence, the study look into the academic performance, learning styles and study habits of the first, and second and third year nursing students of Cebu Normal University during the school year 2001-2002 and to know whether relationship existed among the variables. The locale of the study was College of Nursing of Cebu Normal University in Cebu City, Philippines. The subjects of the study were 58 first year, 66 second year and 35 third year nursing students for a total of 159. The time frame was one school year, 2001-2002. The study utilized the descriptive survey method of research utilizing the inventory and documentary records as the main instrument in gathering the needed data. Documentary records particularly the grade sheets submitted by the teachers in the college of nursing were used to evaluate the academic performance of the students. Two types of inventories were used. They were the Learning Style Inventory developed by David Kolb and the Study Habit Inventory developed by Peter Edwards. The above inventories were administered to the first, second and third year nursing students during their free periods after permit was secured from the Dean of the College of Nursing. A hundred per cent retrieval was attained.

Keywords: Learning styles, study habits, academic performance, nursing students

INTRODUCTION

A college education is one of the most durable and worthwhile investments one can make. It is also one of the safest investments possible. It is a unique purchase; one of the few things one can buy that will last through a lifetime. College education can never crumble, decay or flake, or wear away. Education can't be destroyed or taken away. Once it is acquired, it becomes part of the person. When one is clear about what he wants, what he ought to do with his life, education is usually a sure way to get it. College education is the gateway to getting a professional career and to enter the world of work with better pay and more chances of promotion.

One of the courses in college is nursing education and nursing service. Nursing is a vital component of the country's health system, it has evolved from a vocation into a profession. It is a profession whose main concern is life, promotion and restoration of health, prevention of illness and alleviation of human sufferings. It could spell the difference between life and death of a patient. It becomes imperative that graduates of nursing must be able to attain the highest standard of professionalism expected of them.

Professionalism includes decisions based on the body of professional knowledge, expertise, emotional maturity and neutrality, status achieved by performance and interest in client welfare (Deane and Campbell, 1988). According to Association of Deans of Philippine Colleges of Nursing (ADPCN), professionalism includes standards that are controlled by colleagues and other members of the profession. To attain such level, it becomes imperative that nurses must be equipped with a strong foundation, quality education and excellent training while they are still in college. But in the present scenario the students do not study well during the tenure of their college education. When students don't do well the reason is not insufficient knowledge but it is the failure of the student to study effectively (Peter, 1991).

It had been noted that generally nurses are characterized by feelings of inadequacy, powerlessness, frustration, and pessimism (Leddy and Pepper, 1989) as

manifested in their being less assertive in the clinical area. Bandman and Bandman (1995) pointed out that nurses were less effective in their professional functions as evident from their dependence on doctors in terms of decision making in the management of patient care. The Cebu Normal University in the past years had produced board top notchers and hundred per cent passing percentage in the Board Examination for nurses. But the present situation pointed to a decline in student's academic performance. This trend must not be allowed to prevail but must be arrested immediately. There is a need to improve the academic performance of the students since learning is closely allied to teaching because when there is learning there is teaching. There is therefore the need also to improve. One way to improve teaching is to match the system with how the students learn and how they study their lessons. Fitting education to the learning styles and study habits of nursing students would help them in becoming master students and ultimately improved performance.

This study was anchored on the Experiential Theory by David Kolb (1984), which stated that when students learn and learn well, they tend to go through four stages in understanding their experience. Grant (1987) asserted that learning styles and study skills and techniques are essential ingredients for a successful college student. Learning and learning well involves the application of effective study habits and a more balanced learning styles that would eventually result to a good if not superior academic performance. Based on this theory, it is hypothesized that there is no significant relationship between learning styles and study habits on one hand and academic performance on the other.

METHODOLOGY

The procedures followed in this study were that of the descriptive survey method of research utilizing the inventory and documentary records as main instruments in gathering the needed data. This was supplemented by actual observation of students as well as follow-up interviews. The locale of the study was the College of Nursing of Cebu Normal University located along Osmena Boulevard, Cebu City.

Involved in the study, as respondents, were the first year, second year and third year nursing students of Cebu Normal University during the school year 2001-2002.

Table 1: The Research Respondents

	Males		Females		Total		Percentage
Year levels	F	P	F	P	F	P	36.48
First Year	8	13.79	50	86.21	58	100.00	36.48
Second Year	11	16.67	55	83.33	66	100.00	41.51
Third Year	4	11.43	31	88.57	35	100.00	22.01
Total	**23**	**14.50**	**136**	**85.50**	**159**	**100.00**	**100.00**

The table shows a total of 159 respondents who were involved. Comprising this totality were 58 first year representing 36.48%, 66 or 41.51% second year and 35 or 22.01% third year students. Among 158 respondents 23 or 14.50% were males and 136 or 85.50% were females.

There are two types of inventory used in the gathering of the needed data. They were the Learning Style Inventory and the Study Habits Inventory.

The Learning Style Inventory: This is an inventory developed by David Kolb, professor at Case western Reserved University. It contains twelve sentences with four choice endings. The student ranked the endings for each statement according to how well the students think each one fits the way he goes about learning something. The ranking starts from most likely with a rank of 4 to least likely with a rank of 1. The students were told not to make any ties. They must choose 4, 3, 2, or 1 for each sentence. The aim was to complete the inventory in about 6 minutes and allowed 20 minutes to score their inventory and to graph their own learning styles. This was not a test and there were no right answers. The students were told that they may have higher scores in some areas; but they should remember that they used all four ways of learning.

Each of the four choices to each item was ranked by the students as 4, 3, 2, or 1. An answer sheet indicated the answers as F (feeling), T (thinking), W (watching), or D (doing). The number for the indicated answers were totalled, as total for F, total for T, total for W and total for D. Each student was provided with a graph with the score indicated for F, T, W and D, which indicated the preferred learning styles.

The Study Inventory: Peter Edwards developed the study inventory. It contained a total of twenty-five (25) statements distributed among five aspects, which had 5 statements each about study habits. The five aspects were: general study habits, concentration, time

management, reading, and note taking and examinations. Other aspects of study habits that were not included in the above aspects are outside of the scope of the study.

A permit to administer the Learning Style Inventory (LSI) and the Study Inventory (SI) to the first, second, and third year nursing students was secured from the Dean of College of Nursing. With her approval, the researcher explained in detail how the inventories were answered within one hour or less. A hundred per cent turnout of students was secured. The students scored their answers and plotted their scores in the learning style graph. The academic performance was taken from the grade sheets submitted by the teachers to the office of the Dean, college of Nursing. The final rating of each student in the first and second semester were added and averaged. The average measured the academic performance.

RESULTS AND DISCUSSIONS

Profiles of Learning Styles, Academic Performance and Study Habits

Learning Styles:

Learning styles are ways of learning by the students. They indicate how best student learnt their lesson. The learning styles if nursing students are presented in table 2 on the next page. As shown in the table, of the 58 BSN 1 students, 10 or 17.24% learned best through concrete experience, 7 or 12.07% favored active experimentation, 18 or 31.03% were reflective observers and 23 or 39.66% were abstract conceptualizers. Thus, majority of the first year nursing students learned best through abstract conceptualization. They showed partiality for knowing facts and figures. They like to take in many information and lots of concepts on a new topic.

Table 2: The Profile of Learning Styles of the Nursing Students

Learning styles	BSN I		Rank	BSN II		Rank	BSN III		Rank	Total		Rank
	F	P		F	P		F	P		F	P	
CE(Concrete Experience)	10	17.24	3	22	33.33	1	9	25.71	3	41	25.79	3
AE (Active Experimentation)	7	12.07	4	6	9.09	4	4	11.43	4	17	10.69	4
RO (Reflective Observation)	18	31.03	2	17	25.76	10	10	28.57	2	45	28.30	2
AC (Abstract conceptualization)	23	39.66	1	21	31.82	12	12	34.29	1	56	35.22	1
Total	58	100		66	100	35	35	100		159	100	

In one hand, the sixty-six second year nursing students were distributed as follows in their learning styles. They are 22 or 33.33% concrete experience, 6 or 9.09% active experimentation, 17 or 25.76% reflective. So, most of the second year nursing students learned best through concrete experience. This style indicated a preference for learning things that have personal meaning. It is a preference for things that one feels are important and relevant to the person at present.

Ranked according to preference, most preferred style by the BSN I students was abstract conceptualization and the least preferred was active experimentation with a rank of 4. This can be explained by the type of lessons the BSN I students have in their syllabus. Most of their lessons are on the theoretical aspect composed of lectures, discussions and more readings.

Among BSN II students rank 1 was concrete experience, followed by abstract conceptualization as rank number 2, then the reflective observation as rank number 3 and rank number 4 as least preferred was active experimentation. The second year nursing students learnt things that have personal meaning and to discover whether what they learn is important and relevant to them. This is because it is in this year that the students make decisions whether they are really for nursing or not. Finally the BSN II students had a preference for abstract conceptualization since this style was ranked number 1. Ranked number 2 was reflective observation followed by concrete experience as rank number 3 and least preferred as rank number 4 was active experimentation. Third year nursing students indicated preferred learning by acquiring as much as facts and figures. They liked to take in many information and lots of concepts on a new topic.

On the other hand, the 35 third year nursing students were distributed as follows in their learning styles. They are 9 or 25.71% concrete experience, 4 or

11.43% active experimentation, 10 or 28.57% reflective observation and 12 or 34.29% were abstract conceptualizers. Most of the third year nursing students indicated a preference for abstract conceptualization in learning. Finally, the 159 nursing students revealed that 41 or 25.79% preferred concrete experience, 17 or 10.69% preferred concrete experience, 17 or 10.69% had preponderance for active experimentation, 45 or 28.3% learned by reflective observation and 56 or 35.22% preferred abstract conceptualization. Thus, the learning styles of most of the nursing students were abstract conceptualization. They preferred learning ideas, facts and figures. They enjoy learning abstract concepts; they like to think and to absorb many concepts and lots or information on a certain topic.

Table 3: The Profile of Learning Styles

Students	Profile of Learning Styles				Total	
	Balanced		Less Balanced			
	F	P	F	P	F	P
BSN I	6	3.78	52	32.70	58	36.00
BSN II	10	6.29	56	35.22	66	41.00
BSN II	12	7.55	23	14.47	35	23.00
Total	28	17.61	131	82.39	159	100.0

Table 3 reflects the profile of learning styles of nursing students in terms of being balanced or not balanced. As shown in the table, there were 159 nursing students in all. Of this number, 58 or 36% were first year, 66 or 41% were second year and 35 or 23% were third year nursing students. Of the 58 BSN I students, 6 or 4% had balanced learning styles while 52 or 32% had less balanced learning styles. Of the 66 BSN II students, 10 or 6% had balanced learning styles while 56 or 35% had less balanced learning styles. Finally, of the 35 BSN III students, 12 or 8% had balanced styles while 23 or 15% had less balanced learning styles. The figures revealed that majority (82%) of the nursing students from first year to third year had less balanced learning styles. This meant that while going through the stages of learning, students stuck to one learning style. The students stuck to a dominant style even if the situation called for another style of learning. Students should be adaptable and versatile. They should shift from one style to another when the situation so demands. There is a need to help students to have a more balanced learning style.

The Academic Performance

The academic performance of the nursing students was average grade of their academic subjects during the first and second semester of the school year 2000-2001. The academic subjects of the first year nursing students in the first semester were: English I, Filipino I, Philosophy I (Logic) Psycho I, Math I, Natural Science I, and PE I while their second semester academic subjects included the following: English II, Filipino II, Philosophy II, Social An.I, Natural Science II, Literature I and PE II.

The second year students during the first semester took the following academic subjects: English III, Math II, Social Science I, Ng. Applied Science I, HC I (Health Care) and PE III. Their academic subjects in the second semester included English IV, Physical Science I (College Physics), Info Tech I, Social science II, STS (Science Technology and Society), HC II (Health care II) and PE IV. In the first semester of the year covered in the study, the curriculum for the third year nursing students listed the academic subjects which were RLE (Related Learning Experience), English V, Psychopath and Economics I. The second semester academic subjects taken by the third year students were Nursing 104, RLE, Political Science III, Maths III and English VI. Table 4 presents the academic performance of the first, second, and third year nursing students who were involved in the study.

Table 4: The Academic Performance of Nursing Students

Nursing Students	Academic Performance										Total		W.M.	D.R.
	Very Good (VG)		Good (G)		Fair (F)		Poor (P)		Failed (Fd)					
I	7	12.07	38	65.53	12	20.68	1	1.7	-	-	58	100	3.87	Good
II	1	1.52	20	30.30	40	60.60	4	6.06	1	1.52	66	100	3.24	Fair
III	-		10	28.57	24	68.57	1	2.86	-	-	35	100	3.25	Fair
Total	8	5.03	68	42.76	76	47.79	6	3.77	1	0.65	159	100	3.47	Good

Legend: Weighted Mean (W.M.)
4.21-5.00- Very Good (V.G); 3.41-4.20- Good(G); 2.61-3.40- Fair(F); 1.81- 2.60- Poor (P); 1.00- 1.80 Failed (Fd)

As shown in the table above, of the fifty eight (58) first year nursing students, seven (7) or 12.087% received a very good (VG) academic performance, thirty eight (38) representing 65.53% had good (G) academic performance, twelve 12 or 20. 68% achieved a fair rating while one (1) or 1.72% had poor but passing academic performance for the first year students. The table reflected a weighted mean of 3.87 which was within the range of 3.41 to 4.20 which reflected a good performance. Thus, the first year nursing students had a good (G) performance in their academic subjects. The table revealed a total of sixty-six (66) nursing students enrolled in their second year. From this number of students, only 1 or 1.52% gave a very good (VG) performance in his academic subjects. Among the remaining number of students, their percentages and their academic performance ratings were as follows: 20 or 30.3% got a good (G) rating, 40 or 60.6% received Fair (F) rating and 4 or 6.06% were rated poor but still managed to pass. A single student which made up of 1.52% was not able to pass his second year and received a Failed (fd) rating in his academic performance. The weighted mean for the second year nursing students as seen in the table was 3.21. This falls within the range 2.61 to 3.4 which indicated a Fair (F) rating in the legend found below the table. This meant that the though second year nursing students had a fair (F) academic performance but it fell short of the standard expectations.

The last batch of students on the basis of their year level was third year nursing students where a total number of 35 are reflected on the table. The frequency distribution and percentages of the 35 students in term of academic performance were as follows: ten or 28.57% with good rating, 24 or 68.57% with fair rating and 1 student representing 2.86% with poor rating. Although poor in academic performance, the student managed to pass. Furthermore, the table shows a weighted mean of 3.25 for the third year students. The legend located below the table provided a fair rating in academic performance for the third year students considering that their computed weighted mean was within the 2.61 to 3.4 range. The fact that this group of students is one year short in finishing the course, they are expected to perform more than normal and a fair rating is not up to the standard. Finally, the table reflected a total of 159 nursing students involved as respondents as distributed in terms of their level as follows: fifty-eight for the first year, 66 in their second year and lastly, 35 students on their third year.

The over-all academic performance ratings of the total number of nursing students involved in the study were distributed as: Eight or 5.03% made very good, 68 or 42.76% had good, 76 or 47.79% were fair, 6 or 3.77% received poor while one 1 or 0.65% failed.

As seen in the table, the over-all academic performance of the nursing students involved in the study was rated good since the computed mean was 3.47 and this was found to be within the range of 3.41 to 4.2 interpreted as good.

Study Habits

The profile of study habits of the first year, second year and third year nursing students is presented in Table 4. As shown in the table, students with scores ranging from 25-30 had excellent study habits and 51-75 had very poor study habits.

Table 5: The Study Habits of Nursing Students

Nursing Students	Study Habits								W.M.	D.R.
	VG		SG		VP		F	P		
	F	P	F	P	F	P				
I	11	18.00	29	50.00	18	31.03	58	100.00	1.87	SG
II	13	19.00	34	51.52	19	28.78	66	100.00	1.16	VP
III	9	25.71	23	65.72	3	8.57	35	100.00	2.17	SG
Total	33	20.75	86	54.09	40	25.16	159	100.00	1.95	SG

Legend:
3.26-4.00- Excellent Study Habits 2.51-3.25- Very Good Study Habits (VG)
1.76-2.50- Some Good Study Habits (SG) 1.00-1.75- Very Poor Study Habits (VP)

As reflected in the table, of the 58 BSN I students, no one had excellent study habits, 11 or 18.97% had a very good study habits, 29 or 50% had some good habits and 18 or 31.03% had very poor study habits. The weighted mean for the first year nursing students was 1.87 and it indicated that they had some good study habits but with some room for improvement. They need some help to improve general study habits, concentration, time management, reading and note-taking along with taking and passing examinations. On the other hand, the 66 second year nursing students were distributed as follows in their study habits: no one had excellent study habits, 13 or 19.7% had a very good study habits, 34 or 51.52% had some good study habits, but with wider room for improvement. The remaining 29 or 28.78% had a very poor study habits. The weighted mean for second year nursing was 1.76, as shown in the legend below the table, a weighted mean 1.76 meant that the second year BSN students had some good study habits but with some room for improvement. They need to improve study habits with regard to preparing for and in taking examinations, including study habits and in note-taking, in time management, in concentration and general study habits.

Furthermore, of the 35 third year students, again no one had excellent study habits, 9 or 24.71% had a very good study habits, 23 or 65.72% had some good study habits and 3 or 8.57% had a very poor study habits. The weighted mean of the third year nursing students was 1.95. As shown in the legend, a weighted mean of 1.95 pointed to some good study habits but with some room for improvement. They need to improve their concentration skills, time management, note-taking and reading habits. Finally, the same pattern was being followed by all of the 159 nursing students respondents who were distributed as followed: no one had excellent study habits, 33 or 20.75% had a very good study habits, 86 or 54.09% had some good study habits but with room for improvement and 40 or 25.16% had a very poor study habits. The weighted mean of 1.95 indicated that the nursing students had some good study habits but there is room for improvement. The finding was confirmed by the students themselves who admitted that there is a need to improve their study skills. The consequence of this study is an instructional development plan.

The Relationship between Study Habits and Learning Styles of Students

This portion of the study investigated whether study habits is related to learning styles of the students. These two variables were considered to influence the academic performance of the students. Table 6 revealed the relationship between study habits and learning styles of the nursing students. Reflected in the same table were 34 students (21.38%) had a very good study habit. Of this number, 25 or 15% had not balanced their learning skills while the remaining 9 or 5.66% were more balanced in their learning skills.

According to the table, 54.08% (86) of the students who had some good study habit. The frequencies and percentages of this group in relation to learning styles were 73 or 45% with less balanced learning style and 13 or 8.17% more balanced. Furthermore, as entered in the table were 39 or 24.54% of the students had very poor in study habit, in their learning styles. The weighted mean of the third year nursing students was 1.95 which indicates some good study habits but with some room for improvement. They need to improve their concentration skills, time management, note taking and reading. Finally, the same pattern was being followed by all of the 159 nursing students respondents who were distributed as followed: not one had excellent study habits, 33 or 20.75% had a very good study habits, 86 or 54.09% had some good study habits but with room for improvement and 40 or 25.16% had a very poor study habits. The weighted mean of 1.95 indicated that the nursing students had some good study habits, but there is room for improvement. The finding was confirmed by the students themselves who admitted their need to improve their study skills. The outgrowth of this study is an instructional development plan.

The consideration of the above two factors will definitely have provision for improvement of their study skills along time management, concentration, reading and note-taking, examinations and general study habits. The findings of the study conducted by Petallar (1980) contradicted the above finding because the senior agriculture students and vocational students had a very good study habits.

Table 6: The Relationship of the Study Habits and the Learning Styles of the Nursing Students

Study Habits	Learning Styles				Total		Chi-Square
	Not Balanced		More Balanced				
	F	P	F	P	F	P	
VG	25	15.72	9	5.66	34	21.38	2.32
SG	73	45.91	13	8.18	86	54.09	
VP	33	20.75	6	3.77	39		
Total	131	82.39	28	17.61	159	100.00	

Not significant at 0.05 level df=2 t.v.= 5.991

Finally, the table gave the computed chi-square value of 2.32. This value was used to test the hypothesis that there was no significant relationship between study habits and learning styles of the nursing students. The computed chi-square value was lower that the table's value of 5.991 (*df*= two at 0.05 level of significance). This finding meant the acceptance of the hypothesis of no significant relationship between the students study habit and their learning styles. The status of the study habit among the students involved was not influenced by their learning styles, whether they were not balanced or more balanced.

The Relationship between Academic Performance and Study Habits

The result of the study revealed that the nursing students had a rating with respect to their academic performance. This section of the study tried to inquire and determine the variables that may have influenced the good academic performance of the students. The variables involved in this study were limited to two, namely: the study habits and the learning styles of students.Table 7 reveals the relationship of the academic performance of the students and their study habits.

Table 7: The Relationship of Academic Performance and the Study Habits of Nursing Students

Academic Performance	Study Habits						Total		Chi-square
	VG		SG		VP				
	F	P	F	P	F	P	F	P	
VG	2	1.26	3	1.89	3	1.89	8	5.03	
G	18	11.32	34	21.38	16	10.06	68	42.77	
Fair	11	6.92	46	28.93	20	12.58	77	48.43	
Poor	2	1.26	3	1.89	-		5	3.14	
Failure	-		1	0.65	-		1	0.63	**17.37**
Total	33	20.75	87	54.74	39	24.53	159		

Significant 0.05 level of significance df=988 t.v.= 15.507

The table showed that there were 8 students (5.03%) who had an academic performance rating of very good. But 2 students or 1.25% had a very good study habit, 3 students or 1.88% had some good (SG) study habits while another 3 or 1.88% had study habits classified as very poor. Good academic performance ratings were given to 68 students (42.76%). In terms of their study habits, 18 or 11.32% had a very good, 34 or 21.38% had some good and that the remaining 16 or 10.06% were very poor. The table also revealed 77 students representing 48.72% were rated fair in their academic performance. The frequency distribution and percentages of students in terms of study habits are as follows: 11 or 6.91% had a very good. Forty six or 28.73% had some good habit and 20 or 12.57% were very poor.

Furthermore, the Table 9 showed that 5 or 3.14% to the students who made a poor academic performance. Two or 1.25% of these students had study habits regarded as very good and 3 or 1.88% had some good study habit and not a single student rated as poor in terms of academic performance had acquired a very poor study habit. The table also shows a single student who failed in his academic performance although this student had some good study habit. Finally, the table provided the computed chi-square value to test the hypothesis that

there was no significant relationship between the academic performance and the study habits of the nursing students. The computed chi-square value shown in the table was 17.37 and the analysis reflected that this is more than the table value of 15.507 at 0.05 level of significance, with eight degrees of freedom. Thus, the hypothesis was rejected. The rejection of the hypothesis meant that there is no significant relationship between the academic performance rating of the students and their study habits. The status of the study habit among the nursing students would indicate their academic performance. Since academic performance is dependent on study habit, those who scored high in their academic performance rating had better study habits compared to those who have lower academic performance. This finding is supported by the findings of the study conducted by Aminravan (1985), Petallar (1980), Koivo (1981) and Halim (1971) who all revealed a positive correlation between study habits and academic performance.

The second variable considered in the study as determinant in the academic performance of the students was their learning styles as revealed in Table 7. Found in the table, there were 9 students or 5.6% who made very good (VG) academic performance and all 9 students were not balanced (NB) in their learning styles. Secondly, as shown in the table, there were 68 students or 42.76% who garnered a good (G) academic performance whereby 58 or 36.47% did not have balanced (NB) learning styles while the remaining 10 students representing 6.28% had more balanced learning styles.

Table 8: The Relationship of Academic Performance and the Learning Styles of Nursing Students

Academic Performance	Learning Styles				Total		Chi-square
	Not Balanced		More Balanced				
	F	P	F	P	F	P	
VG	9	5.66	-		9	5.66	
G	58	36.48	10	6.28	68	42.77	
Fair	59	37.11	16	10.06	75	47.17	
Poor	3	1.89	3	1.89	6	3.78	**10.32**
Failure	1	0.62	-		1	0.62	
Total	81.76	54.74	29	18.24	159	100.00	

Significant at 0.05 level df=4 t.v = 9.488

It is evident from the table that students who were rated fair (F) in academic performance were 75 which represented 47.16%. There were 29 students or 37.1% who had not balanced their learning styles and the rest of the 16 students or 10.06% had more balanced learning styles. Among the students, 6 or 3.78% were poor in academic performance. This group were equally divided in number according to their styles with 3(1.89%) from each group having less balanced and more balanced in their learning styles. It is furthermore noted in the same table that the single student who failed in academic performance had not balanced his learning styles. It was initially hypothesized that there was no significant relationship between academic performance and learning styles of students. To test the correlation between these variables the chi-square was computed and used. Finally, the table provided the computed chi-square value of 10.32 which is more than the tabled value of 9.488 with df 4 at 0.05 level of significance. The result pointed the rejection of the hypothesis that the academic performance of the nursing students is not related to their learning styles. Since the academic performance of the students depended on their learning styles, those students who were more balanced in their learning styles were deemed to have higher academic performance rating compared to those who were not balanced in learning styles. So far this study has been conducted on the relationship of learning styles and study habits, although there were studies correlating learning styles and academic performance. So far this is the first venture conducted along this line.

CONCLUSION

The study and the learning styles of the first year, second year and third year nursing students of Cebu Normal University during the school year 2001-2002 affected their academic performance. The better the study habits and the more balanced the learning styles, the better the academic performance. There is therefore the need to prepare an instructional unit to help students improve their study habits and balanced their learning style.

RECOMMENDATIONS

The following are the recommendations;

1. If academic performance is to be improved, the learning styles and study habits of the students must first be improved.

2. The SQ3R technique of study should be introduced. The SQ3R denotes stands survey, question, read, recite and review.

3. If the student learns in an atypical way, nothing much can change this fact. But teachers as well as parents should help the student to capitalize on the strengths as well as cope with weakness. Strategies must be carefully chosen to transform apparent weaknesses into strengths.

As of the above citations, teachers should combine several approaches or multi-sensory instruction, so the student uses more than one sense at a time while learning.

4. Students must be taught to be adept at learning. They should not be confined with one learning style but should have a more balanced learning style. When one learns, information takes one path into the brain when the eyes are used; another when the ears are used and yet a third when the hands are used. By using more than one sense while learning, the brain is bombarded with information in multiple ways. As a result, the students learn better.

5. The nursing students must be assisted to improve their study habits and to attain a more balanced learning style. To attain this, an Instructional Unit is hereby proposed for the first year master students, second year and third year nursing students. Some of the suggested activities can be done together with some academic subjects while others can be done together with some academic subjects while others can be done separately and voluntarily during the student's free periods. Skilled students learn in all four ways. So whatever the approach a teacher presents, the student enjoys learning learns well and profits from the experience.

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