

Students' Perception and Performance in Computer-Aided Design Subject at John B. Lacson Colleges Foundation-Molo

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Abstract - This study aimed to ascertain factors related to perception of and performance in Computer-Aided Design subject among Commerce students at John B. Lacson Foundation Maritime University-Molo, Iloilo City (JBLFMU). This descriptive study was limited to determining the perception of and performance in Computer-Aided Design as a required subject among Bachelor of Science in Commerce students. The respondents of this investigation were selected fourth year students taking Computer-Aided Design as their elective, who will be classified as to high school of origin, entrance test results, grades in Math and grades in English, and ratings in laboratory results. The data to be used in this study were gathered through the use of a 20-item performance test made by the researcher, and the students' Form 137-A. The mean ($\bar{X}$) and the standard deviation (SD) were used for descriptive statistics. The t test for independent sample was used to determine the significant differences between variables

with two-level categories such as high school of origin. The participants of this study were 37 fourth year Commerce students taking Computer-Aided Design as their elective subject at JBLFMU-Molo, Iloilo City. Results revealed that a positive and but not significant correlation existed between the students' perception of and performance in Computer-Aided Design.

Keywords - Students, perception, performance, computer-aided design, JBLFMU-Molo

INTRODUCTION

Computer-Aided Design (CAD) as an elective subject is considered as a very interesting subject to be learned for it is where actual exposure is done; however, Computer-Aided Design seems to be difficult for the Commerce students to learn. Every teacher, in this regard, should find strategies to present this subject in an enlightening and entertaining way.

Computer-Aided Design should be taught as a very dynamic aspect of computer science that should provide questions and explanations on how the modern technologies work.

What makes Computer-Aided Design difficult to learn? Have students' perception about this subject made it so? Does Computer-Aided Design have something to do with the students' performance in the other related subjects?

A person's favorable outlook or perception about a particular object or situation can have an impact on his liking or disliking it. In fact, Lupdag (1989) states that a positive and favorable attitude or perception of a student reveals his level of learning toward a particular subject making him more enthusiastic to learn than those who have an unfavorable attitude or perception toward it (Lupdag, 1989). Thus, student performance is improved.

The fundamental changes in ideas about the material world have been brought about by the growth of Computer – Aided Design subject. Along with life changes are the changes in technology.

Computer-Aided Design subject in the coming years is a must in the school where different courses are taught. The teaching of Computer-Aided Design must improve students' achievement in whatever learning process. Thus, this study may be beneficial to the Computer-Aided Design Teachers. Teachers, in this regard, need to work well to achieve success in their teaching. Therefore, everyone should make necessary provisions that would help students secure success in learning and to achieve peak performance. The results of this study on Computer-Aided Design could show how the teachers of Computer-Aided Design at John B. Lacson Foundation, Inc., as well as at other schools, to plan their lessons, towards providing skills necessary to ensure learning and achievement in the subject.

The findings can also be significant to teachers of Computer-Aided Design since they may inspire the students to acquire positive or desirable perceptions of the subject so that achievement may be improved. Moreover, they should also take note of the modern innovations in the strategies and techniques in teaching.

FRAMEWORK

Several theories explain that performance in the subject such as Computer-Aided Design may be due not only to positive perception toward the subject but also due to type of school graduated from, entrance test result, grades in Math and English in High School.

Type of school graduated from may be a factor that can relate to the student's performance in Computer-Aided Design.

Fabella (1980) has stated that there will be educational blackout if private schools in the country were closed. He further pointed out that 90% of the students study in the private schools. There is hardly any public or private agency or undertaking where the imprints of private education is not felt. The point is clear that there is a tremendous influence of private schools upon the education of our youth.

Thus, it was also emphasized that the private schools have helped the government immensely in the implementation of academic excellence. The government also relies strongly upon the private institutions to provide the necessary brain and power especially in the prosecution of our economic program.

The researcher would like to determine whether there was a significant difference in Performance in English and Math in High School; Performance in Math and performance in Computer-Aided Design subject.

Grade point average is another factor to be considered in Computer-Aided Design performance. As cited by Borja (1995) it was clarified that student with high grade point averages have higher rates in their performances. This may be because student who are intellectually advantaged, have better initiative and provided themselves with a wide array of opportunities to apply their common sense and prior knowledge. Thus, the most important single criterion of an individual to succeed or fail in any educational endeavor seems to be the level of his mental ability. The concern of this study, therefore, is to find out how these above-cited factors influence performance in Computer-Aided Design among Commerce Student at John B. Lacson Colleges-Foundation, for the year 1999-2000.

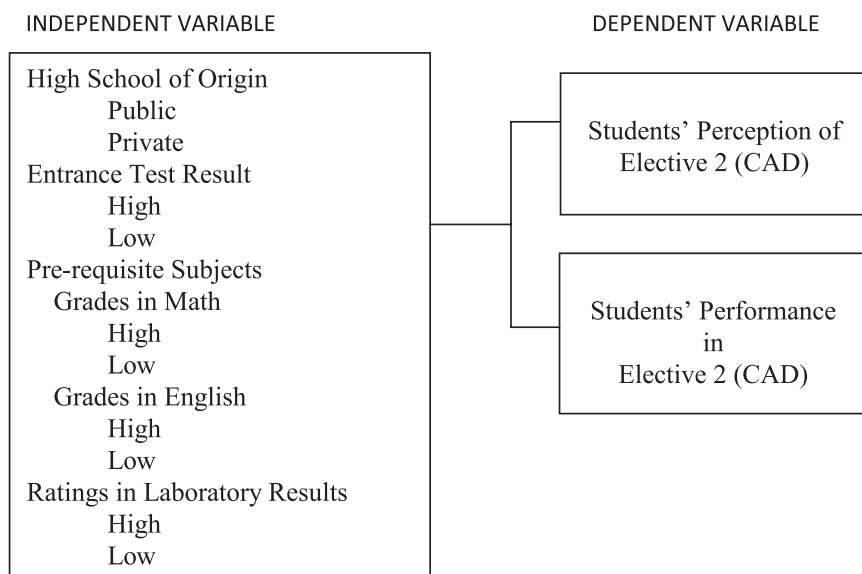


Figure 1. A Schematic Diagram of this study.

OBJECTIVES OF THE STUDY

This study aimed to ascertain factors related to perception of and performance in Computer-Aided Design subject among Commerce students at John B. Lacson Colleges Foundation-Molo, Iloilo City. Specifically, the following were the objectives of this study:

1. To determine the level of perception of Computer-Aided Design among Commerce Students when they are taken of a whole, and when grouped according to (a) high school of origin; (b) entrance test results; (c) grades in Math, (d) grades in English and (e) ratings in Laboratory Results.
2. To determine the level of performance in Computer-Aided Design among Commerce Students when they are taken of a whole, and when grouped according to (a) high school of origin; (b) entrance test results; (c) grades in Math, (d) grades in English and (e) ratings in Lab Results
3. To ascertain the significant differences in the Commerce students' level perception of Computer-Aided Design when they are grouped according to (a) high school of origin, (b) entrance test results, (c) grades in Math, (d) English and (e) ratings in Laboratory Results.
4. To ascertain the significant differences in the Commerce students' level of performance in Computer-Aided Design when they are grouped according to (a) high school of origin, (b) entrance test results, (c) grades in Math, (d) English and, (e) ratings in Laboratory Results.
5. To determine the significant correlation between perception of and performance in Computer-Aided Design.

METHODOLOGY

The primary purpose of this in investigation was to determine the perception of, and performance in Computer-Aided Design subject among the Commerce students at JBLCF (Molo),Inc. Iloilo City.

The data needed in this study were obtained though the use of a 20-item perception rating scale, and the academic achievement of the student as shown in their Form 137-A.

The study also aimed to determine the influence of high school of origin, grade in Math, grade in English, and student's performance in Computer-Aided Design.

The data were interpreted using the means and standard deviations for descriptive statistics and the t test, one-way ANOVA and Pearson's r for inferential statistics.

The participants of this study were fourth year Commerce students taking Computer-Aided Design as their elective subject at John B. Lacson Colleges Foundation-Molo, Iloilo City during the school year 1999-2000. They constitute 100 percent of the population. The students were categorized as public and private in reference to high school of origin; high, and low achievers for entrance test results; high, and low achievers for grades in Math and English; and high and low achiever for Laboratory Results.

Among the 37 students grouped according to high school of origin, 27 came from public schools and 10 students came from the private schools.

To come up with the data needed for this investigation, the investigator designed a 20-item "Perception Rating Scale on Computer-Aided Design" questionnaire. To determine performance in Computer-Aided Design the grade point averages of students in the subject were used. The students' grade in Math and English were obtained from their Form 137- A. Laboratory Results were obtained from their grade during the course of the study.

Permission to involve all the fourth year students taking Computer-Aided Design as their elective subject at John B. Lacson Colleges Foundation, Molo, Iloilo City was secured from the dean of the college where these students belonged. As soon as the permit to conduct the study was granted a pilot study was conducted to refine the research instrument. This was administered to respondents who were not included in the final sample. With permission from the college registrar, the students' averages were taken from their Form 137-A for their performance in Computer-Aided Design. The obtained data for this study were subjected to appropriate statistical treatment for interpretation. The mean, standard deviation, and t-test were the statistical tools used in this study.

RESULTS AND DISCUSSION

The results of the present study included the following: There are no significant differences in the levels of perception of Computer-Aided Design among the Commerce students when they are grouped according to (a) High School of Origin, (b) Entrance Test Results, (c) Grade in Math, (d) Grade in English; (e) Ratings in Laboratory Results.

There are no significant differences in the levels of performance in Computer-Aided Design among the Commerce students when they are grouped according to (a) High School of Origin, (b) Entrance Test Results, (c) Grade in Math, (d) Grade in English, (e) Ratings in Laboratory Results.

A positive but not significant correlation existed between the students' perception of and performance in Computer-Aided Design.

CONCLUSIONS

In view of the foregoing findings, the following conclusions are drawn:

The students of this study seem to have highly desirable perceptions in Computer-Aided Design may be because they need the satisfactory perception of the subject in order to understand the application of the subject in their course.

Good and highly desirable perception of computer-aided design, can be more appreciated resulting in interest in the subject which in turn may result in better performance

The good performance of students in Computer-Aided Design could be due to educational opportunities, school facilities and teacher's competence in handling the subject.

The satisfactory performance of commerce students could be influenced by factors such as High School of origin, Entrance test Results, Grades in Math and English and Ratings in Laboratory Results.

RECOMMENDATIONS

Based on the findings and conclusions of this study, the following recommendations are presented:

1. There is a need for the John B. Lacson Colleges Foundation-Molo, especially Computer Department to evaluate the Computer-Aided Design Program to ascertain whether or not the Program is relevant and responsive to the needs of the students and to determine further the profile and qualifications of teachers handling Computer-Aided Design.
2. Instructors of Computer-Aided Design must be sent to seminars and workshops to upgrade themselves on the recent strategies in teaching the subject. Moreover, they may be made aware that their teaching expertise may directly or indirectly influence the students' performance in Computer-Aided Design.
3. The researcher has to discuss the results of this study with the Department Heads and Dean where the students belong so that periodic evaluation or observation of the Computer-Aided Design teachers can be done to ensure better performance of teachers.
4. It is recommended that in order to validate the results of the present inquiry, parallel studies in perception of and performance in Computer-Aided Design and its related areas be conducted in a wider range. The probability of finding out other learner-related variables anticipated.

LITERATURE CITED

Alimen, R. A.

- 1999 Performance in physics, ascendance-submission in personality, and attitudes among marine engineering students. Unpublished master's thesis, John B. Lacson Foundation, Inc., Iloilo City.

Allyn & Bacon. Teaching analysis and applications. New York: Mcmillan

Anam,R.

2000 Teaching performance and pupil's scholastic achievement. Unpublished master's thesis, West Visayas State University, Iloilo City.

Bedia, M.S.

1996 Student flow analysis in a state institution. An unpublished doctoral dissertation, West Visayas State University, Iloilo City.

Best J.W. & Khan J.V.

1993 Research in education. USA:

Best, J.

1981 Research in education. Englewood Cliffs,

Brutsaert, H.

1995 State universities research in education. An Interdisciplinary Research Journal.

Erebaren, G.C.

1994 On personality, attitude, and teaching styles. The WVSU Graduate Journal, 29 (1). West Visayas State University, Iloilo City.

Facinabao, A.

1997 Mathematics performance and learning difficulties among high school seniors at Saint Martin academy. Unpublished master's theses, West Visayas State

Gay, L.R.

1992 Educational research: Competencies for

Lee, J.

2000 Values education in the two-year colleges. Los Angeles California: ERIC Digest.

Markham, K.

1993 Standard for student performance. Washington DC: ERIC Clearinghouse on Assessment and Evaluation. NJ: Prentice hall.

Microsoft Encarta

2000 Encarta Interactive World Atlas.

Microsoft Encarta

2000 Encarta Research Organizer.

Microsoft Encarta

2000 Encarta World English Dictionary.

Pador, E.L.

1981 Mental ability, scholastic aptitude and study orientation as predictors of academic achievement. Unpublished master's thesis, University of San Agustin, Iloilo City.

Peterson, D.

1991 School-based management and student performance. University of Oregon, Eugene: ERIC Digest. Publishing.

Rudner, L.W.

1999 The scholastic achievement of home school students. Washington DC: ERIC Clearinghouse on Assessment and Evaluation.

Scriven, M.

1999 The nature of evaluation. Washington: ERIC Digest.

Taylor, D.A.

1990 Introduction to marine engineering. Manila: TTG & W Printing.

Victoriano, J.J.

2000 The mathematical skills of the first year marine engineering students: toward the development of a module in supplemental mathematics. Unpublished master's thesis, John B. Lacson Foundation, Inc., Iloilo City.

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