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Correlates of Licensure Examination Performance among Marine Engineering Graduates

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Abstract - The purpose of this study was to determine the correlates of licensure examination performance among marine engineering graduates at John B. Lacson Foundation Maritime University -Molo, Iloilo City. This descriptive-correlational research utilizes the graduates' transcript of records and ratings in the 4th marine engine officer licensure examination. The participants of the study were 251 examinees in the 4th marine engine officer licensure examination who were selected through simple random sampling. Frequency counts, percentages, means, and standard deviations were employed as descriptive statistics and t-test for independent samples, the One-way Analysis of Variance, the Stepwise Multiple Regression Analysis, and the Pearson's r set at 0.05 alpha level as inferential statistics. Results showed that, generally, the marine engineering graduates of JBLFMU-Molo Inc. had "average" performance in the 4th engine officer licensure examination. Also noted was the significant differences that existed on both personal factors such

as GPA in college, age upon taking the examination, year gap between graduation and board examination, and non-personal factors such as type of curriculum, categorization of graduates, type of program, and educational attainment, but no significant differences was noted on high school of origin and performance in the licensure examination.

Keywords - Licensure examination performance, Marine Engineering, graduates

INTRODUCTION

The quality of education offered in a certain college or institution is often determined by the graduates it produced. In like manner, the quality of graduates produced by an institution is measured by their performance in the nationally conducted board examination. This performance based on the percentage of passing in the licensure examination serves as a barometer that gauge the quality of education they acquired in a particular school. Cinco (2000) stressed that school performance refers to the percentage of passing examinees from a particular board examination conducted by Professional Regulation Commission (PRC).

Along this concept, Arcelo (2000) stressed that the quality of maritime education in the country can best be gauged from the performance of the schools in the licensure examination. Hence, it is vital to go through the examination records for the facts from which it is possible to make comparisons. Furthermore, Cinco (2000) emphasized that it is vital for every school to know how its graduates perform in various licensure examinations. Whether they are high, low, average or zero performing, schools need feedback in evaluating their performance toward planning for the succeeding years.

This study was based on the assumptions that JBLCF- Marine Engineering graduates should perform satisfactorily in the PRC examinations, especially in the 4th engineer licensure examinations.

This performance is expected on them because they are the products of a school that has maintained its standard in maritime education and has fully complied with the requirements of the Commission on Higher Education, International Maritime Organization, and STCW '95.

OBJECTIVES OF THE STUDY

This study aimed to determine the correlates of the 4th Engine Officer's licensure examination performance among the marine engineering graduates of the John B. Lacson Colleges Foundation-Molo Inc. Specifically, the following were the objectives of the present study:

1. To determine the level of performance in the 4th Marine Engineer licensure examination of the marine engineering graduates of John B. Lacson Colleges Foundation- Molo Inc., Molo, Iloilo City when taken as a whole or grouped according to their GPA in College, age upon taking the examination, high school of origin, year gap between graduation and board examination, type of curriculum, categorization of students, type of program, and educational attainment of graduates.

2. To analyze the significant differences among the graduates' performance in the 4th Marine Engineer licensure examination when classified as to their personal factors such as: (a) grade point average in college, (b) age upon taking the board examination, (c) high school of origin, and (d) year gap between graduation and board examination; and non-personal factors such as: (a) type of curriculum, (b) categorization of students, (c) type of program, and (d) educational attainment of graduates.

3. To ascertain which among the personal factors--GPA in college, age upon taking the examination, high school of origin, and year gap between graduation and board examination and non-personal factors--type of curriculum, categorization of students, type of program, and educational attainment of graduates, are significant predictors of the graduates' performance in the licensure examination.

4. To ascertain the significant correlations among the personal and non-personal factors and the performance of the graduates in the 4th marine engine officer licensure examination.

MATERIALS AND METHODS

The descriptive-correlational method of research was used in this investigation. Descriptive research according to Gay (1992), involves collecting data in order to test hypotheses to answer questions concerning the current status of the subject under study; while correlational research involves collecting data in order to determine whether, and to what degree, a relationship exist between two or more quantifiable variables. Best (1981), explain further that descriptive study describes and interprets what is concerned with the conditions or relationships that exist, opinions that are held, processes that are going on, effects that are evident, or tends that are developing. He also stressed that descriptive study is very helpful tool in determining relationship between variables, the testing of hypotheses, and the development of generalizations, principles or theories that have universal validity.

Specifically, the method used in the study was ex post facto type. Sevilla et al. (1984) define ex post facto as "from after the fact". In ex post facto research, the researcher investigates a problem by studying the variable in retrospect. It is a research in which the dependent variable is immediately observable and the main concern of the research is to find out the antecedents that gave to the consequence.

The participants were also grouped according to the year they passed the 4th engine officer licensure examination. Data show that of the 251 subject of the study, 43 or 17.13% passed the examination in the year 1998, 145 or 57.77% in year 1999, and 63 or 25.10% in the year 2000.

To gather data needed for this study, the researcher used the student's permanent record/transcript of record available at the registrar's office of the John B. Lacson Colleges, Foundation at Molo, Iloilo City. From their permanent record, data regarding their GPA in college, age upon taking the examination, year gap between graduation and licensure examination were obtained. Furthermore, the same student's record were used to gather data on the type of curriculum, categorization student, type of program and educational attainment availed by the participants of this study.

The data regarding the performance of the marine engineering graduates who passed the 4th marine engine officer licensure examination from 1998-2000 were obtained from the office of the Public Information and Statistics Division of the Professional Regulation Commission through the Guidance Office of John B. Lacson Colleges Foundation Molo, Inc. and from the Student Personnel Services Division of JBLF, Inc. also at Molo, Iloilo City campus.

Permission to conduct the study regarding the correlates of the 4th marine engine officer licensure examination among the marine engineering graduates was obtained through the office of the administrator of the John B. Lacson Colleges Foundation-Molo Campus. With the permission from Administrator and the Registrar, the investigator personally examined the records of the graduates in their permanent record to obtain data regarding the grade point average, the age upon taking the examination, year gap between graduation and board examination, the type of curriculum, category of the students, type of program and their educational attainment.

To gather data on the performance of the graduates in the 4th marine engineer licensure examination, a letter request was sent to the Public Information and Statistics Division of the Professional Regulation Commission through the Guidance office of JBLCF-Molo Inc. Also, some data regarding results of the board examination were taken by the researcher at the office of the Student Personnel Services (SPS) Division at the JBLF-Molo Campus.

Data gathered from the student's permanent records at the registrar's office and the results of the board examination were subjected to appropriate statistical treatment for interpretation.

RESULTS AND DISCUSSION

The findings of the present study included the following: The marine engineering graduates of John B. Lacson Colleges Foundation-Molo Inc. had an "average" performance in the 4th marine engine officer licensure examination from 1998-2000.

They differ significantly in their licensure examination performance when grouped according to grade point average, age upon taking the licensure examination, year gap between graduation

and licensure examination, educational attainment, type of curriculum, categorization of graduates, and type of program. No significant difference was noted in the licensure examination performance among the graduates when grouped according to high school of origin.

All of the personal factors--grade point average in college, age upon taking the licensure examination, high school of origin, and year gap between graduation and licensure examination, and non-personal factors--categorization of graduates, type of program, type of curriculum, and educational attainment were significant predictors of the graduates performance in the 4th marine engine officer licensure examination.

Positive and significant correlations were found between the performance in the licensure examination and the following variables: (1) grade point average, (2) age upon taking the licensure examination, (3) year gap between graduation and licensure examination, (4) type of curriculum, (5) categorization of graduates, (6) type of program, and (7) educational attainment. A positive and not significant correlation existed between the graduates' performance in the licensure examination and high school of origin.

The findings of this study which revealed that when taken as an entire group, the performance of the marine engineering graduates of the JBLCF-Molo Inc., Molo, Iloilo City in the 4th marine engine officer licensure examination from 1998 to 2000 was average affirms that the school being the leading maritime institution in the country offers quality maritime education. Arcelo (2000) stressed that the quality of maritime education in the country can best be gauge from the performance of the schools in the licensure examination. Though the study revealed that the marine engineering graduates of JBLCF-Molo Inc., Molo, Iloilo City had an average performance in the 4th marine engine officer licensure examination conducted from 1998 to 2000, JBLCF-Molo Inc., Molo, Iloilo City is still consistently on the top 15 maritime institution with regards to its performance in the licensure examination.

Generally, these correlates of the licensure examination performance of the marine engineering graduates can be used as bases for further improvement of the marine engineering program of the JBLCF-Molo Inc. They could also be utilized as effective tools in

the attainment of the mission of the JBLF which is quality maritime education through unrelenting quest for excellence for sustained supply of global technical manpower (QUEST).

CONCLUSIONS

The average performance in the licensure examination of the marine engineering graduates of JBLCF-Molo Inc., Molo, Iloilo City, only indicates that, as a learning institution, the school produce graduates capable of being included among the top maritime schools in the country. This indicates that the graduates of JBLCF-Molo, Inc. could compete with other leading maritime educational institutions in terms of its curricular programs, faculty, facilities and equipment, and administration.

As noted, these variables-–grade point average, age upon taking the board examination, year gap between graduation and board examination, type of curriculum, categorization of graduates, type of program and educational attainment had a positive and significant correlation with the licensure examination performance of the marine engineering graduates.

The results imply that the level of performance of the marine engineering graduates in the 4th marine engineer licensure examination could be a product of the interplay of both the personal and non-personal factors of the graduates.

RECOMMENDATIONS

In the light of the research findings and conclusions, the following recommendations were offered:

1. John B. Lacson Colleges Foundation-Molo Inc., should evaluate their graduates by giving pre-board or similar examination prior to the release of their diploma in Bachelor of Science in Marine Engineering to assure superior if not excellent performance in the licensure examination. The school should also device a review module to be given to graduate's and be brought onboard so that they can have a chance to review for the examination

while onboard to better prepare themselves for the licensure examination.

2. Since a significant difference existed in the performance in the licensure examination of the subjects when they are grouped according to their personal and non-personal factors, administrators, same as the curriculum planners in the marine engineering program should give more emphasis to those factors in order to improve performance of their graduates in the 4th marine engineer licensure examination.
3. Results of the study revealed that the grade point average (GPA) is one of the predictors of the performance of the marine engineering graduates in the 4th marine engineer licensure examination. Thus, it is recommended that the grades of entering freshmen who seek enrollment in the BS Marine Engineering program should be seriously considered in the admission or selection of BS Marine Engineering students. High grade in high school should be one of the admission requirements for students who would like to enroll in the BS Marine Engineering course. This is to assure that only quality students are admitted and most likely the school will also produce quality graduates who had better chances of passing the licensure examination.
4. Administrators through the student personnel services (SPS) should strengthen linkages with shipping companies to assure that graduates of marine engineering could have their apprenticeship right after graduation, considering that age and year gap between graduation and board examinations plays a vital role in the performance of the examinee in the licensure examination.
5. Likewise, school personnel and instructors should motivate and encourage the graduates to take the licensure examination immediately after they complied with the requirement as to the number of years of training on board so that they can easily pass the examination. As to the result of this study, it was noted that examinees who were below 35 years old when they took the licensure examination have a high mean score. Also, graduates who have short gap between graduation and the date of board examination have an average performance in the licensure

examination.

6. To maintain the high standard of the school in the maritime education, it is recommended that it should limit the number of students to 35 per section so that they could be well accommodated and maintain the special program in the B.S.Mar.E. course where students are categorized as class A students. This is to really assure that graduates of JBLCF-Molo Inc. could improve their performance in the marine engine officer licensure examination. Also, it is recommended that the college should establish a strict retention policy for the students.
7. The school should conduct extensive review class for the graduates who would like to take the licensure examination. It should also encourage the graduates to review with school's review center so that they could be properly guided and helped in passing the examination successfully.
8. Lastly, to further strengthen the findings of this investigation, parallel studies are encourage to be conducted among marine engineering graduates who took the 3rd, 2nd, and chief marine engineer licensure examinations.

LITERATURE CITED

Arcelo, A.A.
2000 High performing maritime educational institution: An assessment of maritime education in the Philippines. Manila: ALG & Associates Research and Development Corp.

Arcelo, M.L.
1990 Maritime education: Status, prospects and challenges. JBLCF maritime education review, Vol. 1(2), p.1-15.

Alimen, R.A.
1999 Performance in physics ascendance-submission in personality and attitude among marine engineering students. Unpublished master's thesis, John B. Lacson Foundation, Inc. Graduate School, Iloilo City.

American Psychological Association.
1994 Publication Manual of the American Psychological Association. (4th ed.). Washington DC: Author.

Aziz, M. A.
1995 International Maritime Organization (IMO) mission report on maritime education and training in the Philippines, April 30-May 10, 1995.

Bago, A.L.
1978 A correlation of different variables that affects the board examination results. Unpublished Master's Thesis, De la Salle University, Manila [online]. Available:http:www//.fapenet.org/old/private/ services/ thesis/tdabs.htm (July 16,2001).

Bert, J.W. and Kahn, J.V.
1989 Research in education. New Jersey: Prentice-Hall, Inc.

Cajelog, R.C.
1996 Relationship between the levels of performance in the engineering board exams and identified correlates. Unpublished doctoral dissertation, University of Baguio, Baguio City [online]. Available:http:www//.fapenet.org/old/private/ services/ thesis/tdabs.htm (July 16,2001)

Commission on Higher Education (CHED)
1999 Memorandum Number 34, s.

Congressional Commission on Education.
1993 Tertiary Education. 4 (3). Quezon City: Philippines.

Downie, N.M. & Heath, R. W.
1984 Basic statistical method. New York: Harper & Row Publisher.

Estolas, J.V., Macaballug, J.Q., and Estola, A.V.
1995 Fundamentals of Research. (Rev. ed.). EDMBMM: Manila

Etulle, C.S.
1995 Correlates of academic performance of freshmen college students of the university of baguio. Unpublished doctoral dissertation, University of Baguio, Baguio City [online]. Available:http:www//.fapenet.org/old/private/services/ thesis/ tdabs.htm (July 16,2001)

Good, C.V.
1983 Dictionary of education. New York: MC Graw Hill Books Co. Inc. p.5

Grolier International Dictionary, Vol.1. USA: Houghton Miffdin, 1988

John B. Lacson Colleges Foundation, Inc. Student Manual

Muyong, R.F.
1991 A follow-up study of the two-year trade technical graduates of southern iloilo polytechnic college from school year 1986-1990. Unpublished Master's Thesis, Western Visayas College of Science and Technology, Iloilo City.

Muyong, R.F.
1997 Perceived political influences and organizational norms among CHED-supervised institution: their relationship to school leadership and governance. Unpublished Doctoral Dissertation, West Visayas State University, Iloilo City.

Orduma, L.V.
1995 Correlates of the scholastic performance of senior high school students of the university of baguio. Umpublished Doctoral Dissertation, University of Baguio, Baguio City City [online]. Available:http:www//.fapenet.org/old/private/ services/ thesis/tdabs.htm (July 16,2001).

Raichle, L.T.
1993 Comparative analysis of curricular and administrative factors of clinical laboratory science programs and their relationship

to performance on certification examination. Dissertation abstract international, 53 (11), 3811 (University Microfilm, Inc. No. AAC 93-08647).

Republic act No. 8544, An Act regulating the practice of merchant marine profession in the Philippines.

Sibonga, D. N.
2000 Correlates of scholastic achievement among BSMT freshmen students. Unpublished master's thesis, JBLF, Inc., Iloilo City.

Statt, D. A.
1991 The concise dictionary of management. London: The London Routledge Publishers.

Tasi, M.L.
1996 Performance of the shan-hua senior high school students in the government entrance examination and their academic performance. Unpublished Master's Thesis, University of Baguio, Baguio City [online]. Available:http:www//.fapenet.org/old/private/services/ thesis/tdabs.htm (July 16,2001).

Walpole, R. E.
1997 Introduction to statistics. (3rd ed.). Singapore: Prentice-Hall, International, Inc.

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