Graduate Tracer Study for Electronics Engineering Program (2016-2018)

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ABSTRACT

This graduate tracer study aims to survey and trace graduates from their school of origin to their self-employment. The researcher used a questionnaire developed by the Commission on Higher Education (CHED) to obtain the needed information in the study. It served as the data gathering instrument and is known as graduate tracer study (GTS). The subjects of the study were the Electronics Engineering graduates of Lyceum of the Philippines–Laguna from school year 2016-2018. Findings of the study revealed that the majority of Electronics Engineering graduates from batch 2016 to 2018 have monthly incomes of Php18,500 to less than Php23,000 in their first jobs. Majority of the graduates hold a regular or permanent status of employment and belong to a position that is classified as professional/technical/supervisory level of work. Lastly, the study revealed that the Lyceum of the Philippines–Laguna provides quality education to students in the field of Electronics Engineering.

Keywords: Graduates, tracer studies, assessment, learning, Electronics Engineering

INTRODUCTION

A graduate tracer study constitutes an important tool for educational planners, as they can provide valuable information for evaluating the productivity of the higher education and training institutions [2]. It is an effort to survey the performance of graduates in the job market upon completion of their chosen field of interest. Graduate tracer studies are increasing and are conducted by schools, universities, and higher educational institutions all over the world. In a progressive world today, surveys are also given to graduates online by giving the Uniform Resource Locator (URL) of the document through online communication such electronic mails, blogs, articles, and other electronic means. It is performed online in order to attain smoother data gathering instead of conducting surveys personally. In the Philippines, graduate tracer studies are initiated by the Commission of Higher Education (CHED) and followed by different colleges and universities. Locally, there are few schools and universities conducting it. It is, however, growing and more are adapting to it in order to improve their effectivity in producing employable graduates.

The study aims to track graduates of Electronics Engineering in Lyceum of the Philippines–Laguna as a way of gauging their capability of securing employment. It is also a means of determining the graduates' satisfaction level during their stay in the university, a means of obtaining basic information on the status of graduates upon graduation, and finally, a means in investigating the employability of graduates in the job market.

Lyceum of the Philippines–Laguna is calling on all graduates of Electronics Engineering from 2016-2018 to participate in study. It is an institution of higher learning dedicated to the development of the integral individual. It is the institution's vision to produce graduates who are well-equipped with necessary skills, knowledge, and attitudes. The tracer study wants to know the satisfaction level of the graduates in terms of curriculum, career guidance, and quality of lecturers and facilities of the institution. It also seeks to determine Electronics Engineering graduates' ability in getting a job, their waiting time before getting the job and their job satisfaction level. The output of study can help the university's management in planning and determining factors related to the improvement of curriculum and services.

Objectives of the study

The researcher listed the goals to consider in resolving the problems stated in the study. These objectives will help the researcher to fully understand and analyze the problem. Theyare:

1. To determine the profile of Lyceum of the Philippines–Laguna Electronics Engineering graduates (batch 2016-2018).
2. To determine the evaluation of Lyceum of the Philippines–Laguna Electronics Engineering graduates (batch 2016-2018), in terms of:
   - 2.1 Assessment of program; and
   - 2.2 Assessment of learning.
3. To determine the current status of employment and position of the graduates.
4. To determine the relationship between the assessment of the program and status of employment and the current position.
5. To determine the relationship between the assessment of learning and status of employment and current position.
6. To determine if there is a difference in the status of employment between males and females.

Conceptual framework

The framework is an intermediate theory that attempts to connect all aspects of inquiry [3]. It shows how the program and learning acquired from the institution affect the employment and position of students after graduation. It also shows how related gender is when it comes to the assessment of program and learning as well as employment status and position.

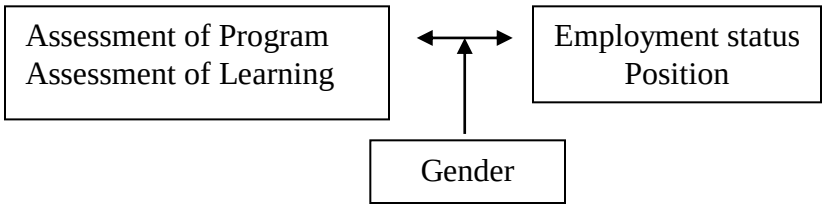

Figure 1. Conceptual framework

METHOD

The researcher used descriptive research in the study to tabulate the collection of quantitative information in numerical form [4]. This method gathered information about the present condition of Electronics Engineering graduates of Lyceum of the Philippines–Laguna that used visual aids such as graphs and charts to aid the reader in understanding the data distribution.

The researcher selected all the graduates of Electronics Engineering of Lyceum of the Philippines–Laguna from batch 2016-2018 as the respondents of the study. It consists of 34-20-28 graduates from batches 2016 to 2018 gathering a total of 31 respondents for the study.

The researcher only used the survey questionnaire answers that ran from the survey period provided by the researcher. This was due to the limited time availability of the researcher, and the unexpected slow retrieval of survey answers from the respondents for two months. Percent retrieval of data is described as the ratio of actual number of respondents that answered from the given survey period (July 23, 2016 to July 18, 2018) and the total number of respondents for the study. Data is displayed in percent.

The researcher used the online questionnaire from a Google application, Google Docs. The online questionnaire was sent to graduates by sending it to their e-mails that was indicated in the list of graduates provided by the Palaestra Consortio Office. The questionnaire is divided into three parts. The first part is about the assessment of the program which tackles relevancy, program description, and quality of

instruction. The second part is about assessment of learning which includes improvements and developments of students' skills and capabilities. Lastly, the third part is about employment and work. It involves the capability of graduates in securing employment after graduation. The researcher used the internet and books (electronic books) as references to acquire more information about graduate tracer study.

The gathered data were summarized and tabulated using frequency counts and percent. Frequency tables are used to present frequency counts and percent of the demographic profile of the respondents. Weighted mean is used to determine to what extent graduates of Electronics Engineering evaluate program and learning. Pearson product moment coefficient of correlation is used to determine the relationship of status of employment and position and the assessment of the program and learning.

RESULTS AND DISCUSSION

Table 1. Assessment of program

Measure	Mean	Weighted Mean
The course content is very comprehensive and relevant to the job.	3.89	Moderately agree
The program components are relevant to the job.	3.96	Moderately agree
The courses are relevant to the intended career.	3.88	Moderately agree
Interpersonal relationships had been developed in school.	3.79	Moderately agree
The program length is sufficient to produce graduates with required entry-level knowledge and/or skill in the field/workplace.	3.75	Moderately agree
The objectives of the program had been achieved.	3.67	Moderately agree
Quality of guidance services is sufficient for the requirement of the workplace.	3.63	Moderately agree
On-the-job training/internship is enough to equip the students with hands-on experiences related to the job	3.70	Moderately agree
The program description captures the types of duties a graduate can expect to perform in the work environment.	3.62	Moderately agree
The objectives of the program are similar to the objectives of the workplace.	3.43	Agree
Quality of instruction is sufficient and provided what is required in the workplace.	3.53	Moderately agree
Quantity of instruction is sufficient for the requirement of the workplace.	3.43	Agree
Composite Mean	3.71	Moderately Agree

Table 2. Assessment of learning

Measure	Mean	Weighted Mean
Developed my ability to work as a team.	4.39	Moderately agree
Motivated me to do my best work.	4.24	Moderately agree
Developed my initiative.	4.17	Moderately agree
Stimulated my enthusiasm for further learning.	4.07	Moderately agree
Sharpened my analytical skills.	3.87	Moderately agree
Developed my oral communication skills.	3.73	Moderately agree
Developed my time management skills.	3.92	Moderately agree
Developed my confidence to investigate new ideas.	3.90	Moderately agree
Developed my creativity.	3.87	Moderately agree
Developed my problem-solving skills.	3.87	Moderately agree
Developed knowledge and skills applicable to a career.	3.83	Moderately agree
Improved my skills in written communication.	3.83	
Helped developed my ability to plan my own work.	3.80	
Helped me make informed judgment.	3.73	
Developed my computer skills.	3.71	
Provided me with a broad overview of my course/major	3.63	
Composite Mean	3.94	Moderately Agree

There are 12 male and 19 female respondents each, with a total of 31 survey responses. Majority of the graduates (64.51%) have earned an initial gross monthly income of Php18,500 to less than Php22,000 in their first job. The minority (35.48%) on the other hand, have monthly incomes of Php12,000 to less than Php17,000. Most graduates (90.42%) have stayed in their jobs for one to two years. Majority of the graduates (90.38%) belong to a position that are classified as professional/technical/supervisory level of work while minority (9.62%) works as a clerk or as rank and file.

The assessment of the Electronics Engineering program obtained a composite mean of 3.71 with a verbal interpretation of *moderately agree*. The assessment of learning for the Electronics Engineering course at Lyceum of the Philippines–Laguna, obtained a composite mean of 3.94 with a verbal interpretation of *moderately agree*.

The assessment of program and status of employment obtained a Pearson correlation coefficient of -0.361 with a probability of 15.70 percent. The assessment of program and the current position obtained a Pearson correlation coefficient of 0.723 with a probability of 51.40 percent. The assessment of learning and the status of employment obtained a Pearson correlation coefficient of -0.187 with a probability of 36.20 percent. The assessment of learning and the current position obtained a Pearson correlation coefficient of 0.244 with a probability of 20.30 percent.

The relationship of employment status between males and females obtained a t-value of 0.00 with a probability of 100.00 percent.

CONCLUSION AND RECOMMENDATION

The initial salary of an Electronics Engineering graduate of Lyceum of the Philippines–Laguna can range from Php15000 up to Php30, 000 during the first job, where Php20,000 up to Php25,000 is more frequent. Electronics Engineering graduates of Lyceum of the Philippines–Laguna stay in their first job that ranges from one month up to two to less than three years, where most of the graduates stay for one to two years. Majority of the Electronics Engineering graduates of Lyceum of the Philippines–Laguna, are regular or permanent as regards their employment status. Few of the graduates obtained a temporary or contractual employment status. Majority of Electronics Engineering graduates of Lyceum of the Philippines–Laguna are working in a professional/technical/supervisory level of work. Only few works as a clerk or rank and file. The graduates evaluate the Electronics Engineering program as *moderately agree* with a composite mean of 3.71. Similarly, in the assessment of learning for the Electronics Engineering course, it obtained a composite mean of 3.94 with a verbal interpretation of *moderately agree*. The evaluation tells that the Lyceum of the Philippines–Laguna has provided quality education to graduates.

The Electronics Engineering course content is very comprehensive and relevant to the job, its program components are also relevant to the job. Its objectives have been achieved, and is similar to the workplace. It is sufficient to produce graduates with the required entry-level knowledge and/or skill in the field/workplace. Its program description captures the duties a graduate can expect to perform in the work environment. Its courses are relevant to the intended career. It develops interpersonal relationship in the institution.

Quality of instruction is sufficient and provided what is required in the workplace. Quality of guidance services is sufficient for the requirement of the workplace. On-the-job training/internship is enough to equip the students with hands-on experiences related to the job.

The Electronics Engineering course, in terms of learning at Lyceum of the Philippines–Laguna, makes the person develop with a team player attitude or behavior, better in time management skills, more enthusiastic in further learning and open to ideas of others, more responsible and independent in their work, analytical and a problem solver, improves oral and written communication, improves computer literacy, and improves decision making skills. All of the measures in the assessment of learning obtained a verbal interpretation of *moderately agree* from graduates.

There is an inverse relationship between the assessment of the program and status of employment; however, it is not significant. There is a direct relationship between the assessment of the program and the current position; however, it is not significant. There is an inverse relationship between the assessment of learning and status of employment; however, it is not significant. There is a direct relationship between the assessment of learning and the current position; however, it is not significant. There is no significant difference in the status of employment between males and females.

The researcher would like to recommend the following:

For the Lyceum of the Philippines–Laguna. The course syllabus should be given importance by the institution since the review of curriculum is done yearly by each department with the help of professors, alumni, and industry partners. Quality of teaching should also be accentuated well; this may consist factors such as method of teaching of the instructors and qualifications of a teacher. On-the-job training/internship may need improvement, such as extending the current period of length to ensure that graduates are fully equipped for the industry. Update current and integrate industry-based software and hardware tools to enhance the students' literacy of practical applications on the field of electronics and communications. Additionally, students should also be adept to contain and practice a multidisciplinary knowledge and behavior.

For the Electronics Engineering students. The study is recommended as a journal to be browsed for career guidance for the Electronics Engineering profession. This will also allow students to be informed with status of employment, salaries, and jobs they could have after graduation.

For the future researchers. The graduate tracer study of Electronics Engineering in Lyceum of the Philippines–Laguna from batch 2016 to 2018 is recommended as a reference for further graduate tracer studies. The data and results, and the conclusions of this study such as the assessment of program and learning would provide comparative results with any future similar or related study.

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