

Professional and Personal Whereabouts of Information Technology Graduates: a Graduate Tracer Study of Leyte Normal University

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ABSTRACT: This tracer study is an initiative to determine career development and, at the same time, evaluate the curriculum design of the BS Information Technology program. The researcher used the descriptive quantitative method as the design of the study. The respondents are from 2013 to 2019, with graduates of 2019 posting the highest percentage share. A total of 183 graduates responded to the survey instrument via a google form. The sampling is purposive and only dependent on the targeted response rate. The method utilized Frequency counts, percentage computation, and mean scores. The findings revealed that most graduates are gainfully employed in the government IT Companies and are regular employees or with permanent status. At the same time, the other respondents are either temporary or casual employees. Finally, the respondents suggest reviewing the curriculum, improving school facilities, and hiring educationally qualified and competent faculty.

KEYWORDS: Tracer Study, Employability, BSIT, Graduates, Work Placement

I. INTRODUCTION

The Leyte Normal University in Tacloban City is considered one of the top-performing state universities in the region and the country. It has been awarded citations from different agencies primarily because of its accomplishments academically. It is the center for teaching excellence in region eight and has produced board topnotchers in the licensure examinations for teachers. Also, the university is tagged as one of the premier schools when it comes to producing top graduates in social work. The university has always been a constant fixture in the licensure examinations for social workers because it made board topnotchers and always had a one hundred percent (100%) passing rate in the exams. The university has offered different academic fields such as communication, social sciences, arts and sciences, management and entrepreneurship, and information technology. These programs have attracted students from all over the region, with more than seven thousand enrollees from 2019-to 2020. These programs are no pushovers as they have yielded professionals performing well in their chosen fields. These manifestations show that the university has crafted quality programs considered one of the best in the region and the nation.

One of the university's best practices is in the field of Information Technology. The program started in June 2006 as approved by the board of regents thru Board Resolution No. 768, s. 2006. Currently, the program is on level 2 status as awarded by the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP). It has also received its Certificate of Program Compliance from the Commission on Higher Education (CHED) and was the first in the region. The BSIT program has produced many professionals doing well in their respective fields of expertise. It has always been the marching mantra of the Information Technology Unit, the umbrella unit of the program, to produce top-caliber professionals to promote the quality of Information Technology education that this university offers.

Continuously monitoring the graduates in terms of their employability status is a way to evaluate the program's effectiveness. In this manner, considered essential factors such as a curriculum review were at par with the ever-dynamic reforms in the information technology industry. One way to do this is through the use of a tracer study. According to Schomburg (2016), a tracer study is a written or oral survey of educational graduates conducted several years after graduation. The questions in this kind of survey vary. Still, common topics include questions on study progress, the transition to work, work entrance, job career, use of learned competencies, current occupation, and ties to the education institution. It gives valuable information for assessing the effects and outcomes of a higher education institution's learning process and education, such as the Leyte Normal University.

It also allows the institution to get data on insufficiencies, discrepancies, and shortages in the program, which can be the basis for curriculum and program improvement. Graduate surveys provide a good source of the whereabouts of graduates, which might help to broaden perceptions and viewpoints among administrators, faculty, and students. Such information like their income, industry, job title, Working time, duration of search for the first job, different job search methods, values developed and practiced in work, skills acquired are relevant for higher education institutions to consider and notice. In 2017, the Information Technology Unit of Leyte Normal University conducted the first tracer study for the 1st batch of graduates of the program. A total of 56 graduates were taken as samples. The study was conducted to assess and evaluate the employability status of the graduates. Also, it will show the relevance of the curriculum, knowledge, accomplishments, work values, and school-related factors vis-à-vis with their jobs. Results indicated that these graduates got employed within four months and held positions related to the course. The On-the-Job (OJT) program is vital in the training of graduates. It is to note that the curriculum should help reinforce the students' knowledge and skills in oral and written communication, problem-solving capability, and entrepreneurial skills (Verecio, et al., 2017).

Because of this information mentioned above, this graduate survey was conducted. The study aims to follow up on the performance of Leyte Normal University BSIT graduates from 2013-2019 as a basis for curriculum enhancement. Specifically, the profile of the graduates in terms of demographics and employability will be shown. It also aimed to explore the perceptions of the graduates towards competencies developed by Leyte Normal University graduates, values formulated in the institution of learning, and further developed different skill sets.

FRAMEWORK OF THE STUDY : The conceptualization of this study revolves around the professional and personal whereabouts of the Bachelor of Science in Information Technology graduates of Leyte Normal University. The tracer study is from 2015 to 2020 except for the 2018 school year. However, the study focuses on determining the demographic profile of the BSIT graduates in terms of civil status, sex, age, and educational background. Also, the professional growth of the respondents in terms of; educational attainment, professional examination (s) passed, acquired training and skills after graduation, employment data, and the employability of the BSIT graduates. Below is the full presentation of the conceptual framework.

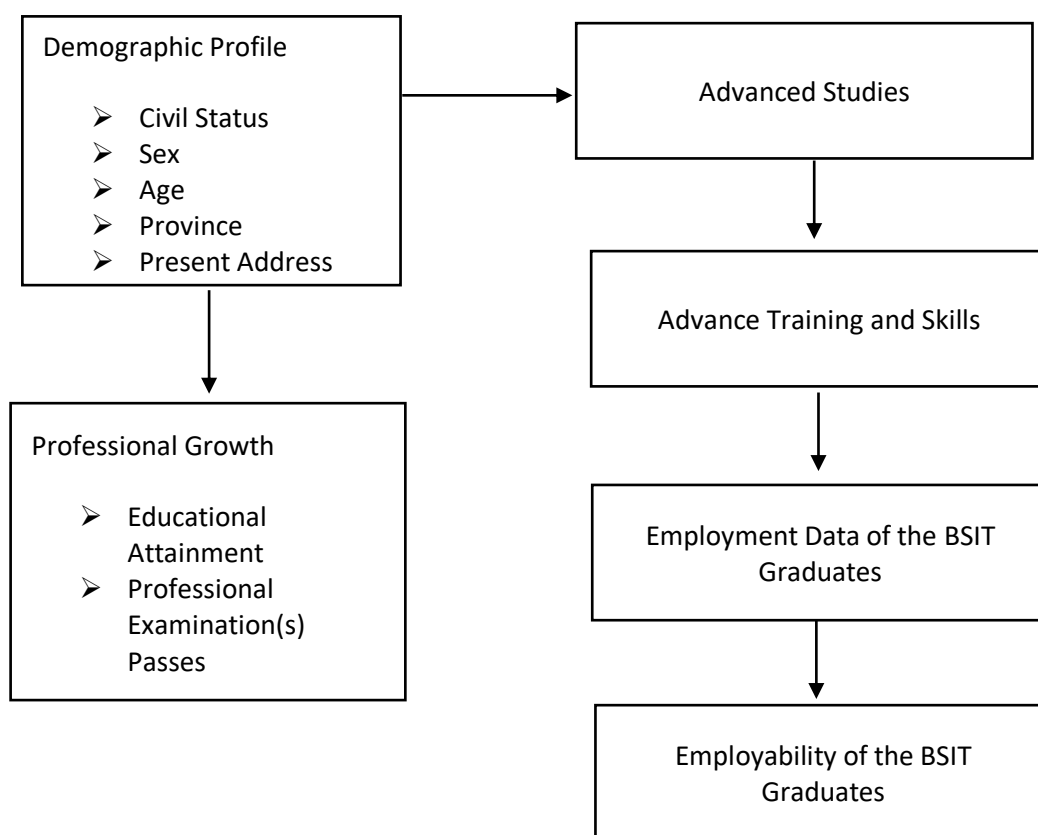


Figure 1: Conceptual Framework

STATEMENT OF THE PROBLEM : The primary goal of this tracer study is to describe the professional and personal whereabouts of Bachelor of Science in Information Technology Graduates of Leyte Normal University from 2013 to 2019 to be able to understand and develop appropriate inputs in curriculum and instruction tailored to the needs of the IT industries and other entities that require an IT competent workforce.

Specifically, this study sought the following questions:

1. What is the profile of the graduates in terms of:
 - a. Age;
 - b. Sex;
 - c. Civil Status; and
 - d. Educational Background?
2. What is the profile of the respondents in terms of:
 - a. Work category;
 - b. Nature of industry;
 - c. Employment status;
 - d. Place of work;
 - e. First job after college and its reason;
 - f. Program relation to the first job; and
 - g. Length of time in acquiring the first job?
3. What training and advanced studies do the graduates acquire after college, and what are its reasons?
4. What are the views and suggestions do the Graduates has relative to curriculum and academic experiences?
5. What are the emerging descriptions does the Graduates has relative to their jobs?

II. METHODOLOGY

Research Design : This study utilized the concurrent triangulation design, and it is a single-phase timing data collection where the data are collected separately and combined in the analysis phase (Creswell & Clark, 2017). In this study, the first design used by the researchers is the descriptive design. It is used to describe the respondents' personal and professional characteristics. While the second part is a descriptive single-case study design which utilized to describe the processes and experiences of the participants in their journey after graduating.

Research Process : This tracer study gathered quantitative and qualitative data of the Bachelor of Science in Information Technology (BSIT) graduates from 2013 to 2019. The total population of the graduates from 2013 to 2019 is 183. The actual respondents of this study came from random samples which were able to answer the survey through google form by generating a link and was distributed to the different group chats in Facebook Messenger organized by the faculties of the Information Technology and Computer Education Unit for at least four weeks from July to August 2020, is 183 respondents which are 53% of the population. This response rate is within the expected rate as Schomburg (2003) recommended, which is 30 to 60 percent in conducting a graduate tracer study. The distribution of the respondents per batch and its corresponding percentage is shown in table 1.

Table 1. Distribution of Graduates and Respondents per Batch

Batch Year	Number of Graduates	Actual Respondents	Percentage
2019	64	52	81%
2018	73	32	43%
2017	48	20	4.70%
2016	44	14	31.81%
2015	10	6	60%
2014	59	29	49.15%
2013	48	30	62.5%
TOTAL/PERCENTAGE	346	183	53%

The research instrument adopted in the study was based on the Commission on Higher Education (CHED) questionnaire and was modified to fit the program under-investigated. The tool is composed of five (5) areas such as personal characteristics, educational background, employment information, professional advanced studies and training, qualitative-open-ended questions asking suggestions and recommendations about the improvement of the curriculum and teaching delivery system, and qualitative descriptions about employment impressions about their job and personality. Moreover, to understand further the graduate, open-ended questions were added and were utilized to explore and verify areas in the curriculum,

Instructions, and industry experiences. The instrument was validated and used by other university programs in conducting tracer studies and other academic institutions in the Philippines.

Data Analysis: used Descriptive statistics to generate and analyze the close-ended questions in the instrument using frequency counts and percentages and presented using tables and graphs for easy visualization and understanding of the graduates' responses. On the other hand, the open-ended questions were analyzed using a thematic analysis procedure that includes data transcription, identification of significant statements, coding, categorization, and theming.

III. RESULTS AND DISCUSSIONS

Table 1 shows the demographic profiles of the respondents in terms of Age and Sex. Table 1 shows that 179 or 97% of the respondents are in their early 20's (20-29 years old), 3 or 1.6% respondents in their early 30's (30-31years old), and one out of 183 or 0.5% respondents is 41 years old. Additionally, females dominate the number of respondents with 83 or 45.36% compared to males with 79 or 43.16%.

Table 1. Profile of the Respondents in Terms of Age and Sex

Age	f	%	Sex			
			Male		Female	
			f	%	f	%
19	0	0	0	0	1	0.55
20	3	1.64	1	0.55	2	1.1
21	20	10.93	2	1.1	13	7.1
22	36	19.67	18	9.83	7	3.82
23	14	7.7	6	3.28	7	3.82
24	29	15.85	13	7.1	14	7.7
25	9	4.91	6	3.28	3	1.64
26	16	8.74	6	3.28	10	5.5
27	34	18.58	19	10.38	15	8.2
28	9	4.92	6	3.28	3	1.64
29	9	4.92	3	1.64	3	1.64
30	2	1.1	2	1.1	0	0
31	1	0.55	0	0	1	0.55
42	1	0.55	1	0.55	0	0
TOTAL	183		83	48.34	79	51.65

Table 2 reveals the Employment profile of the respondents. In terms of Work Placement, IT graduates are mainly working in different industries like Private schools (8 out of 183 or 4.37%), Public schools (16 out 183 or 8.74%), Private organizations (1 or 0.5%), Private companies (23 or 12.56%), Government (53 our of 183 or 29.00%), IT Company (including BPO) (58 out of 31.70%), moreover, there are IT graduates who are Self-employed (8 or 4.37%) and unemployed (13 or 8.61%). Hence, with regards to the Employment Status,(90 or 40.43%) of the IT graduates hold a Regular or Permanent Status, next Contract of Service (49 our of 183 or 26.77%) and Temporary Status (16 out of 183 or 8.74%), hence, there are IT graduates whose employment status is Self-employed (6 or 3.27%) and Unemployed (17 or 11.26%). The employability of students is essential. According to Yorke (2006), employability is a set of achievements in the forms of skills, understandings, and personal attributes of a graduate giving them a high likelihood of employment and be successful in their chosen career, which in return benefits not only themselves but the community, workforce, and economy as well. Similarly, Kramberger and Pavlin (2007) state that employability is the capability of an individual to secure or maintain employment. They also stated that an individual's reaction and attitudes to changes of vocations and locations matter.

Table 2. Work Profile of the Respondents as far as Placement, Nature of Industry, and Employment Status

Work Placement	Nature of Industry														Employment Status				
	Banking	Business	Call Center /BPO	Govt. Service	Computer Technology/Software	Education/ Academics	Telecommunication	Sales/Marketing / Advertising	Financial Inst.	Healthcare	Humanitarian Work	Electrical	Admin Aid Human Resource	Others	Temporary	Contract of Service	Regular or Permanent	Self-employed	Unemployed
Private School					1	7								2	3	5			
Public School				6		10								4	5	6	1	1	
Private Organization										1									
Private Company	1	7	1				1	5	4	2		1	1	2	4	16			
Government				44	8								1	6	32	15			
IT Company (including BPOs)		1	33		22		1	1						2	3	47	2	1	
Self-Employed		5			2									1	2	1	3	2	
Unemployed														13					13
Total	1	13	34	50	33	17	2	6	4	2	1	1	2	14	16	49	90	6	17

Table 3 shows the Place of Work of the Respondents. Results revealed that (118 or 64.48%) of the graduates opted to work within Region VIII, while others found jobs Outside Region VIII (58 or 32.69%). Hence, some IT graduates find more enormous opportunities Abroad (5 out 183 or 3.31%). Graduates tend to work outside the country if the change is significant in that place, but because the demand for work is in the locality, they prefer to work in the country rather than work abroad (Sira, Celda, Valenciana, & Sobrepeña, 2018).Further, finding a job within the vicinity of their residence for convenience and practicality of not spending too much on lodging and going back home after work is one thing they still wanted to experience (Aguila, De Castro, Dotong, & Laguador, 2016).

Table 3.Place of Work of the Respondents

Place of Work	Frequency	Percentage
Within Region VIII	118	64.48%
Outside Region VIII	58	31.69%
Abroad	5	3.31%

Table 4 shows the Distribution of Respondents in terms of Job After Graduation. It states that 67 or 36.61% of IT graduates consider their current job as their first job after college; also (110 or 60.10%) of the IT graduate find a job is related to the IT course they graduated. Hence, (116 or 63.38%) have been exposed to different job opportunities after graduation. However, (70 or 38.25%) IT graduates state that their current work is unrelated to the IT course. In the study of Javier (2015), younger graduates tend to be employable because the new skills and knowledge acquired in school were the demands of the industry. Further, these graduates acquired up-to-date training that could satisfy the needs of the IT industry.

Table 4. Distribution of Respondents as far as Job After Graduation

First Job After College		First Job Related to the Course		Acquired Length of time First Job was						
YES	NO	YES	NO	Less than a month	1 to 6 months	7 to 11 months	1 year to less than 2 years	2 years to less than 3 years	3 years to less than 4 years	Unemployed
67	116	110	73	47	87	14	13	2	2	4

Hence, IT graduates pursue advanced studies, take master's degrees, take academic units in teaching, or enroll in National Certification. The primary purpose of taking advanced studies is professional development, promotion, or gaining new knowledge. Moreover, graduates attended several pieces of training like computer-like training (ex. programming, computer troubleshooting, cybersecurity), work-related training (ex. banking, accounting, bookkeeping, and budget management training), or personal development training (ex. Cooking and civil service exam).

Furthermore, IT graduates express their views and suggestions relative to curriculum and academic experiences. **Theme 1: Well-designed IT Curriculum**, it shows that IT curriculum offers compound knowledge to the IT graduates. It helps develop student skills in computer from basic to advance as they progress to a higher level. Moreover, crafting the IT curriculum follows the standard policies and procedures mandated by the Commission on Higher Education. Wherein learning objectives and competencies are identified in the course offering. Here are some of the IT graduate responses:

IT Graduate30: Nothing, the course curriculum we had was good.

IT Graduate 2: I think the course curriculum is already excellent, and my recommendation is that the courses be updated with what is trending in the IT world.

IT Graduate 9: The course curriculum, from my experience, was well-designed to improve soon. However, it would be better to select specialization as an IT major/graduate since the program is diverse and very broad.

Theme 2: Design curriculum that offers IT specialization; some IT graduates recommended offering IT domain since not all students perform well in some computer subject. Here are some of the IT graduate responses:

IT Graduate 38: Add a specialization or a Major in the IT course: e.g., Major in Computer Networking, Major in Programming, Major in Computer Maintenance.

IT Graduate 52: I guess to have a specific major for IT students, same with Education course.

IT Graduate 94: IT is a comprehensive course that tackles almost everything about technology. It's nice if the curriculum will let the students choose what specific field they want to have, e.g., Having a significant study.

Theme 3: Provide up-to-date skills and technologies significant to the IT industry; up-to-date computer skills and state-of-the-art technology will help IT graduates become more competitive and technology savvy as they look for future job opportunities. Likewise, providing hands-on learning activities exposing real-world scenarios. Here are some of the IT graduate responses:

IT Graduate 5: Please provide up-to-date technologies for other courses and industry-related tools, frameworks, and others.

IT Graduate 54: Students to be exposed to an IT corporate office setup on their projects (project manager, team lead, technical writer, QA, developer, etc.) since not everyone will be a developer once they work in an IT company, might put some into different roles that they might not foresee when they are still studying.

IT Graduate 125: More (updated) skills training/ development; More Hands-on learning activities & exposure to real-world IT industry.

IT Graduate 128: Real-world experience inside IT industry helps, i.e., Programming Competition/Internship.

Theme 4: Augmented professional courses to enhance more professional courses with the advanced topics in programming (Javascript and Python), robotics, and machine learning as suggested by the IT graduates.

IT Graduate 1: Robotics and more Machine Learning Courses for the Program.

IT Graduate 63: A curriculum with enhanced programming languages such as Python, Java, and Javascript.

IT Graduate 63: Advance Programming Courses

Theme 5: Feedback and Assessment timely feedback and assessment will help and guide the students in the learning process.

IT Graduate 107: I recommend seeking guidance feedback to experts/teachers for better improvement on both sides and then applying it.

IT Graduate 107: Give recognition to the students who work hard to accomplish the given task.

IT Graduate 136: Online Quizzes

Further, managers/supervisors give/describe LNU IT graduates are hardworking, passionate, dedicated, and fast-learners positive feedback. Even promoted Some of the IT graduates were after months of working. Here are some of the IT graduate responses:

IT Graduate 27: I think I am doing well. I was promoted after two months, and my employer gave me trust by giving me work with incredible difficulty.

IT Graduate 72: Fast-learner and takes on challenges pro-actively.

IT Graduate 105: Good attitude, versatile and hardworking.

IT Graduate 125: An employee who has a positive attitude towards work is dependable, organized, work well with colleagues, finish tasks with minimal supervision, sort things out quickly when it comes to basic troubleshooting, and use standard computer software apps available in the office.

IV. CONCLUSION AND RECOMMENDATION

This graduates' tracer study is a collaborative work of the faculty members of the Information Technology and Computer Education Unit of the Leyte Normal University. This study is essential and significant to improve further the existing program curriculum being offered by the unit. Also, the program's strengths and limitations, as well as appropriate training and lessons, should be addressed. To strengthen competencies needed for employment locally, nationally, and internationally. Hence, the following summary of conclusions and recommendations: BSIT graduates are predominantly females and in their early twenties. The findings of the gathered data showed that most of the graduates could acquire a job six months after graduation. It also revealed

that most of them are already regular employees and have careers in the region. Furthermore, more than two-thirds of the graduate landed jobs in companies that offer services related to their program. It is suggested that more program graduates be included as study respondents to obtain more feedback. It is also indicated that the questionnaire contains questions about the curriculum and the quality of faculty teaching and techniques. It will help the unit review its curriculum competencies, and the training faculty members need to acquire. All of these will help improve the delivery of the program and strengthen the expertise of the faculty that will help address the different needs of the IT industry in general. It is also recommended to create an online platform like social media accounts for future program graduates to access relevant studies like this easily. Furthermore, the faculty should review the program curriculum to ensure that any necessary revisions and accommodations conform with the various skills required in the business. Lastly, tracer studies like this are given outstanding support by the university to continue monitoring how its graduates are doing and what the faculty can do in the *curriculum and instruction*

to produce more productive and commendable graduates.

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