The Course Learning Experience as a Forerunner in IT Internship: Assessment from the Student and the Host Training Establishment

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Abstract: On commencing internship, undergraduates are required to perform core and professional skills under the supervision of external host training establishments. The variability of knowledge and skills experience can provide and identify placement in the Information Technology industry following graduation. This study presents intern assessments on how well the internship program supports development and demonstration of essential listed attributes. It explores perspectives on how well their course learning experience acts as a forerunner to develop skills/competencies. It seeks to validate how course categories from degree programs prepared them for training and which of the categories have been utilized and applied. This article includes the assessment of the interns from their immediate supervisors. The internship enabled the interns to develop or demonstrate essential attributes where 52% implied that they gained skills to apply in their future career, 35% appreciated the importance of continuing personal and professional development, and 10% inferred that the internship program was a substantial contribution in preparing them for professional career upon graduation. On the learning experience, more than 75% of the responses reflected seven listed skills and competencies. More so, 85% of the students have chosen the Internship course has prepared them substantially. Moreover, the course was highly utilized among other course categories as responded by 83% of the interns. The host training establishment response to the intern's performance has a high of 77%-92% in the range of 1-1.87 under the Excellent top box score. These results all contribute to the overwhelmingly positive perception of student intern performance.

Keywords: Internship, Course Learning Experience, Performance Assessment

1. Introduction

The internship program for every bachelor's degree is the most crucial supplemental training for students in practical skills, knowledge, and attitude necessary to adapt to the changing industrial world (Vo, Le, & Lam, 2021). The degree programs under the College of Computer Science and Engineering (CCSE) in Jose Rizal University prepares students through the reinstatement of its program educational objectives as 1) excel in their profession/career utilizing the knowledge acquired in the Information Technology courses, 2) become effective collaborators and innovators in information technology, applying professional/technical skills and competencies to make a positive impact on society; and 3) be engaged in life-long learning and professional development through self-study, continuing education, or graduate and professional studies. These objectives clearly state and aspire that a graduate must own the complete preparedness package of useful skills and competencies following program completion.

Every JRU student is entitled to the university's rich course learning experience as the it continues to reach for quality standards confirmations for its more than 100 years of

educational excellence, 3-star rating of excellence in QS Stars Rating System, CHED Autonomous Status, UKAS ISO Certified, and PACUCOA Level 4 accredited in some programs, among others. This paper intends to chronicle the perspectives of the students and the hose training establishments on how the course learning experience of an intern has become a forerunner in their on-the-job training experience. JRU decided on blended learning in 2007. For a few disciplines in the general education curriculum, the university has implemented the Course Redesign Program (CRP). A collaborative set of learning activities was prepared for the registered students from several general education courses, and the CRP eliminated face-to-face encounters in the classroom. Students like having the freedom to complete their online coursework and free-time tasks on or off campus. Blended learning has long been employed successfully by JRU students known as Rizalians, and as a result, scientists' learning outcomes were enhanced. At present, students from all levels relish the employment of the Canvas Learning Management System which was entirely beneficial during the pandemic.

The CCSE internship program is designed specifically to meet the students' training needs within the context of their work for IT-related responsibilities. An internship based on a strong model of intern recruitment and supervision, structured inclusion of interns in a supportive work culture, a detailed orientation, and a monitoring program through the Internship course was prepared for CCSE interns.

1.1 Research Objectives

This paper aims the following: 1) examine the students' perspectives on how their internship program has enabled them to develop and demonstrate essential skills and attributes, 2) propound how the university has prepared the students through their learning experiences in a set of defined skills or competencies, 3) present how the students defined course categories prepared them for the internship program, 4) depict students standpoint on what extent has their course types utilized or applied in the internship program, and lastly, 5) in response, convey how the students were evaluated by their host training establishments.

2. Research Methods

The setting of this study was in Jose Rizal University located in Mandaluyong City, Philippines. The target study population was students under the facilitation of one internship adviser through purposive sampling. The student interns are under the College of Computer Studies and Engineering (CCSE) who are pursuing the degrees of Bachelor of Science in Information Technology (BSIT) with some majors, Bachelor of Science in Business Administration Major in Computer Science (BSBA-CSc), Bachelor of Science in Computer Engineering (BSCpE), and Bachelor of Science in Entertainment and Multimedia Computing (BS EMC) with some majors. The internship course was taken in the months of January to May during the second semester in the senior year (4th year), following graduation. During the 2020-2021 academic year, under the supervision of the internship adviser, there are 14 students enrolled in the internship course. The 2020-2021 academic year holds 49 students and the academic year 2022-2023 has 48 students. Table 1 shows the demographics of the students and their courses.

Table 1. *Students in the CCSE and Respondents*

SY & Internship Course Code	Degree Program	# of Students
2020/21 – ITC 53	BSIT	11
	BSCpE	2
	BSBA-CSc	1
2021/22 – EMC C402	BSIT	29
	EMC-DAT	19
	BSIT-AGD	1
2020/21 – ITC C402	BSIT	46
	BSIT-BA	2
	TOTAL	**111**

All courses from the university employ the utilization of the Canvas Learning Management System. More so this has been realized since the pandemic as it has assisted all faculty members across all divisions of the institution to hold their classes synchronously and asynchronously. This is especially realized in the online environment and while this modality supports learning continuity and was evident that online classes have become a place for students to socially engage with others to meet various psychological needs to buffer pandemic stress (Ebardo and Suarez, 2023). The Canvas LMS course for the Internship course covered all submission assignment links per module on a weekly basis. Some are categorized submissions for pre-, upon, and post-deployment documents. Since academic year 2020/21, an Outcome-Based Education (OBE) Reflection Survey was required to all student interns through the Canvas LMS as an assignment type under the post-Deployment documents category. This was to be filled up by the students after their 486-hour internship (for BSIT program) from the host training establishment (HTE).

For academic year 2020/21, the interns were working in various IT industries nationwide and as far as Singapore as all were done through the work-from-home setup until the academic year 2021/22. As for 2022/23, the internship was done through hybrid mode. The virtual internship approach provided opportunities for large-scale distance learning institutions to routinely offer work experience to their students, supported by the further development of effective remote working practices (Reid, Butler, Comfort & Potter, 2023).

The OBE Reflection survey was created by the representatives from the HEI's academic council with internship facilitators and other experts. The questionnaire is divided into 4 parts with a total of 11 questions. The 4 parts of the questionnaire are shown in Table 2.

Table 2. *OBE Reflection Survey Questionnaire*

Parts	# of Questions	Type
A. Course Matters	6	5 Qualitative
		1 Quantitative
B. Teacher Matters	1	Qualitative
C. Personal	7	Qualitative
D. Course & Program Evaluation	4	Quantitative

On this study, the first 4 research questions focus on the last part of the questionnaire, the Course & Program Evaluation. Jose Rizal University uses surveys because an effective Customer Experience Management (CEM) program necessitates the compendium, synthesis, exploration, and dissemination of customer metrics. When summarizing the responses to the survey, the indicators are calculated using the Top Box Score. This indicates the proportion of

the student responses who gave the highest rate on the scale (Vinluan, Mangaba, & Valderama, 2021).

The author used descriptive statistics to analyze the data. To simplify reporting of results, the questionnaire dichotomized the responses as follows: "excellent" for the Course and Program Evaluation part, question #8, #9, and #10, and "to a large extent for question #11".

3. Results and Discussion

3.1 Course & Program Evaluation – Development and Demonstration of Essential Attributes

The interns assessed how successfully the following vital qualities were developed or demonstrated during their internship program. Using the Top Box Score, 84.6% of the interns for the academic year 2020/21 interns responded "excellent" in the following 2 attributes: "Gain skills that I can apply in my future career" and "My Internship Program was a substantial contribution in preparing me for professional career upon graduation." For academic year 2021/22, 82.2% of the interns responded "excellent" attributing to "Appreciate the importance of continuing personal and professional development." And for the academic year 2022/23, 91.7% of the interns chose the attribute "Gain skills that I can apply in my future career" as their top score. A summary is shown in Table 3.

Table 3. *Internship Program Enablement in Developing and Demonstrating Essential Attributes Top Box Score*

SY and Course Code	Attributes	# of Excellent Responses	Total Responses	% of Top Box Score Response	Total # Enrolled
SY 2020/21 ITC 53 OJT/Practicum	H. Gain skills that I can apply in my future career.	11	13	84.6	14
	N. My Internship Program was a substantial contribution in preparing me for professional career upon graduation.				
SY 2021/22 EMC C402 Internship	G. Appreciate the importance of continuing personal and professional development.	37	45	82.2	49
SY 2022/23 ITC C402 Internship	H. Gain skills that I can apply in my future career.	44	48	91.7	48

3.2 JRU Learning Experience – Skills and Competencies

JRU uses surveys because a successful Customer Experience Management (CEM) program requires the collection, synthesis, investigation, and distribution of customer metrics. The JRU learning experience is one of the hallmarks as the institution values good education. It pays attention how the Rizalian learning experience is valuable according to a Rizalian himself. Another voice of the customer process is done through JRU Classroom Learning Experience (CLE) Survey and the JRU Customer Satisfaction Survey (CSS) (Vinluan, Mangaba, Valderama, 2021). The interns are no exception here. An item in the OBE Reflection Survey (question #9) entails responses to the top box score, which received the grade "excellent" due to its subsequent returns which are: a) the analysis is simplified, only 1 item is taken into account instead of 5 or more, b) contrasts are made quickly and easily, compare the results by variables, Top 2 Box scores permit for more effective comparisons of scores and c) trends become more visible as the survey is steered at the end of the semester, tracking the measurement during this time. Top 2 Box scores benefit in recognizing trends in the data. Question #9 asks about how well the JRU learning experience mitigated the interns develop the listed skills/competencies. About 76.9% of the interns in academic year 2020/21 believed that working well with others, applying problem solving strategies, acting responsibly with the

interests of the larger community in mind, connecting to others sensing and stimulating reactions and interactions, and proficiency at thinking beyond what is rote or rule-based are their excellent competencies acquired. About 34 of 45 or 75.6% of the interns presume that working well with others irrespective of age, gender, race, religion, or political persuasion is their key excellent amassed skill. Lastly, 36 of 48 or 75% of the interns reckon that working well with others, and the ability to work productively, drive engagement, and demonstrate presence as a member of a team are 2 of their obtained competencies. Table 4 shows a summary of the Top Box score for the JRU learning experience as a developmental skill and competency for the interns.

Table 4. *JRU Learning Experience as a Developmental Skill and Competency Top Box*

SY and Course Code	Skills / Competencies	# of Excellent Responses	Total Responses	% of Top Box Score Response
SY 2020/21 ITC 53 OJT/Practicum	D. Work well with others irrespective of age, gender, race, religion or political persuasion	10	13 of 14	76.9
	G. Applying a range of strategies to problem solving			
	N. Act responsibly with the interests of the larger community in mind			
	O. Ability to connect to others in a deep and direct way, to sense and stimulate reactions and desired interactions			
	P. Proficiency at thinking and coming up with solutions and responses beyond that which is rote or rule-based			
SY 2021/22 EMC C402 Internship	D. Work well with others irrespective of age, gender, race, religion or political persuasion	34	45 of 49	75.6
SY 2022/23 ITC C402 Internship	D. Work well with others irrespective of age, gender, race, religion or political persuasion	36	48 of 48	75.0
	T. Ability to work productively, drive engagement, and demonstrate presence as a member of a team			

3.3 Course Preparedness

An internship can be considered as one of the positive strategies for the schools to compete for a larger intake of students by promoting a comprehensive curriculum with an attractive internship program (Lam & Ching, 2007). The internship is defined as work placements, industry work experience, practicum, work integrated education. Davies (1990) states that internship is a kind of experiential learning where students take the opportunity to apply learned theories from schools in real-world situations, and it provides an opportunity for students to integrate and consolidate thinking and action. A well-rounded curriculum is however critical for the preparedness of the student to immersion in the internship. Question #10 in the OBE Reflection Survey focuses on how well the student was equipped in the course

categories finished in the past 3 years as training groundwork of concepts and applications for the Internship Program.

The course categories are listed as Languages, Mathematics, History & Social Sciences, Professional courses, Capstone, Elective, and the Internship (OJT). Table 5 exhibits that the Internship course, 76.9%, 80%, and 91.7% respectively for the three (3) school years has the most answered for the Top Box among the interns for the three (3) academic school years. This is an average of 83.8% or 90 of 106 interns. The second Top Box score is displayed due to this. Courses related to Languages (53.8%) and Professional courses (66.7% or 62 of 93 interns) are second most chosen as second Top Box score ("Excellent") for the three (3) academic years.

Table 5. *Course Categories Preparedness Top Box Score*

SY and Course Code	Courses		# of Excellent Responses	Total Responses	% of Top Box Score Response
SY 2020/21 ITC 53 OJT/Practicum	(1)	Internship	10	13 of 14	76.9
	(2)	Languages	7		53.8
SY 2021/22 EMC C402 Internship	(1)	Internship	36	45 of 49	80.0
	(2)	Professional courses	29		64.4
SY 2022/23 ITC C402 Internship	(1)	Internship	44	48 of 48	91.7
	(2)	Professional courses	33		68.8

3.4 Utilization and Application of Courses in the Internship

A broad and well-balanced degree program increases the employability of students. It requires inclusivity if courses that hone and provide skills that can be applied in the future workplace, and that internships strengthen these skills and broaden the scope of non-academic studies (Stamati & Wilmott, 2023).

Zopiatis (2007) defined that internships provide students with the opportunity to apply classroom theory to practical problems in a significant business environment and, most importantly, ensure that their career choices are consistent with their interests and personality. Internships are especially helpful for resourceful students who want to gain some practical experience about the work by working in a bona fide business environment.

It is equally vital to cross-check and validate curriculum courses during scheduled curriculum reviews whether the general, core, and professional courses adapt well to a disciplinal competencies and values of a Rizalian graduate. Internships also provide the students with the necessary skills to be effective in the work environment (Chinomona & Surujlal, 2012). It gives students the opportunity to put their theoretical knowledge into practice and further develop their skills and experience in the industry (Bogdana, Mihaela, & AncaIona, 2012). Allowing the intern to self-evaluate whether the courses in their degree program is the focal point of Question #11. They were asked about the extent to which their courses were utilized and applied to their internship. All intern-respondents from the 3-year period chose the Internship course as the Top Box score, the highest Likert scale indicated that this course has helped them utilize and apply their courses "to a large extent." The internship course poses the following course learning objectives (CLO): 1) Discuss the importance of finding the right company for their on-the-job training or practicum to learn from a real workplace setting and remind them of the duties and responsibilities of an on-the-job trainee, 2) Demonstrate logical and analytical thinking skills, communications and social skills, and IT/EMC related skills needed to perform the assigned tasks in their on-the-job training/practicum, and 3) Develop the proper work ethics of an Information Technology professional and continue to improve

themselves for their professional development. Through teaching and learning activities, the intern adviser/facilitator was keen in the proper dissemination of every procedure relating to the CLOs.

83% or 88 of 106 of the interns presumed that the internship course sustained them "to a large extent" throughout their internship in the Host Training Establishment. In this regard the second Top Box score was retrieved among the course types. 61.5%, 64.4%, and 62.5% responded that the courses on Languages, Professional courses, and Capstone course respectively have been utilized in their internship "to a large extent" as well. Table 6 shows a summary.

Table 6. *Course Utilization in Internship*

SY and Course Code	Courses	# of Large Extent Responses	Total Responses	% of Top Box Score Response	Total # Enrolled
SY 2020/21 ITC 53 OJT/Practicum	(1) Internship	11	13	84.6	14
	(2) Languages	8		61.5	
SY 2021/22 EMC C402 Internship	(1) Internship	36	45	80.0	49
	(2) Professional courses	29		64.4	
SY 2022/23 ITC C402 Internship	(1) Internship	41	48	85.4	48
	(2) Capstone	30		62.5	

3.5 Performance Evaluation from Host Training Establishment

The number of hours in the different degrees vary. In the completion of the 486 hours of internship, at least for the BSIT program, the interns were evaluated by their host training establishments (HTE), specifically their immediate supervisors using the University's ISO labeled form Internship Performance Evaluation. This contains an 8-item indicator list with a 5-point Likert Scale of excellent, very good, good, poor, needs improvement. The interns' immediate supervisor shall rate them through relations with others, judgment, ability to learn, behavior, dependability, quality of work, attendance & punctuality, and over-all performance as compared to other interns. Part of the form were 3 qualitative questions and 1 comment area asking the strengths and weaknesses of the intern and given the sole decision to hire, would they hire them in the organization. To realize the results of this, the researchers ought to show the evaluations of the interns with less than 2 in a 5-point Likert scale, or those with grades in lines of 1.0.

Averagely, using the highest score of 1.0 as Excellent, the evaluator has scored each item and Table 7 presents the total average score of each item of every intern from grades 1.00 to 1.875. Each set of interns from every school year has gained 77%, 92%, and 83% respectively. This depicts a high turnout of the performance of the interns as evaluated by the immediate supervisor from the host training establishments.

The data has shown high impact that the interns have exhibited their work tasks properly. To note, the lowest grades for the interns from all school years are 2.75, 2.5, and 3.1 respectively, illustrating passing grades on 3 as Good in the 5-Point Likert scale. The internships of the 106 students have been overwhelmingly successful for the interns and supervisors as well.

Table 7. *Total Students Evaluation Grade Range*

SY and Course Code	# of Interns with Overall Grade from 1.00-1.88	%	# of Interns with perfect 1.00
SY 2020/21 ITC 53 OJT/Practicum	10 of 13	76.9	5
SY 2021/22 EMC C402 Internship	41 of 45	91.9	13
SY 2022/23 ITC C402 Internship	40 of 48	83.3	7

4. Conclusions

The original aims of this paper is to investigate the students' viewpoints on how their internship program has helped them acquire and exhibit essential skills, validate how their university learning experience has prepared them for the internship through a list of defined skills or competencies, check how the degree courses taken have prepared them and its utilization in the internship program, and lastly, present how they were evaluated by the host training establishments.

From the foregoing results and discussion, the following conclusions are drawn. The interns' response on the area of Course and Program Evaluation, specifically on how well the Internship Program has enabled them to develop or demonstrate essential attributes reflects that 52% implied that they gained skills to apply in their future career, the other 35% inferred they appreciated the importance of continuing personal and professional development, the last 10% denoted that the Internship Program was a substantial contribution in preparing them for professional career upon graduation.

Educating and maintaining potential qualified employees in the workplace is becoming one of the crucial factors for the sustainable development strategy of institutions and organizations (Lam & Ching, 2007). The interns are potential industry practitioners and employees. Their sustainable learning experience may never be repeated in their course of age, which is why their courses, and the internship program must strategically prepare them for future employment. Across the stream of the JRU learning experience, more than 75% of the responses reflected 7 listed skills and competencies shown in Table 4.

The course categories for each degree program only varies on their professional courses, common general education and core courses in the JRU degree programs have identifiably contain uniformity. The respondents in this study have chosen the Internship course has prepared them subsequently. More so it was highly utilized among other course categories.

The host training establishment response to the intern's performance is overridingly positive. A high of 77%-92% of them has rated the interns in the range of 1-1.87 under the Excellent Likert scale vis a vis the performance indicators. This result all contributes to the overwhelmingly positive perception of intern performance.

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