Correlation Study between Laboratory Performance and Internship Grades of BS Information Technology and BS Computer Science Students in Lemery Colleges S.Y. 2021-2022

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DOI: https://doi.org/10.5281/zenodo.7628761

Published Date: 10-February-2023

Abstract: **The computer lab is very important to the student's education. Every institution or university should have this as a key resource, especially for tech-related programs like BS Information Technology and BS Computer Science. The purpose of the study is to evaluate the connection between students with BSs in information technology and computer science's laboratory performance and internship grades. The main goal of the study is whether a student's success in the lab during their first year of college has an impact on how well they do in their practicum or internship. The descriptive-correlational study approach was used to demonstrate the laboratory performance of the SY 2021–2022 BSIT and BSCS graduating class. Performance indicators (PI) and the marks they got from the firms during their internships were used to demonstrate this performance. 35 graduates of the BS in information technology and 16 graduates of the BS in computer science from the academic year 2021–2022 are taking part in this study. It was concluded that there is a strong correlation between laboratory performance and academic internships under corporate supervision. These results contribute to a better significance of performance indicator assessment in laboratory procedures. The second goal is to raise the standards of the quality indicators used to evaluate and track students' computer lab performance. The research recommended integrating academic success and student output at work to create more meaningful data for quality improvement.**

Keywords: **Practicum, Correlation, Computer Laboratory, Performance Indicators.**

I. INTRODUCTION

Computer Laboratory plays a big role in the learning of the students. This is an important facility of every college or university, especially for courses that are technology-related like BS Information Technology and BS Computer Science. This facility provides an access to the students to conduct their hands-on exercises and activities. Students can explore more knowledge if they have a basic understanding of computers if they are exposed to them during their studies. The different applications make it easy for the students to accomplish different tasks. If students are given enough chances to learn how to arrange data or keep records, this will undoubtedly improve their planning and management abilities as well (Sharma, 2019).

Students can use on-campus computer labs for coursework, research, and other educational activities. Lots of computers with software programs for various purposes are typically housed in these labs. Students can learn, use software, complete assignments, and communicate with teachers with the aid of computer laboratories. The ability to gain digital skills necessary in the current workplace without having to buy their own technology and software is what makes these IT laboratories so vital.

A practicum is a course, frequently for a specialized field of study, that aims to provide students with supervised practical application of a subject or theory they have previously or are now studying. Practicums are required for all college students. This is mostly conducted in the last semester of the students. They need to complete the required number of hours in order to pass their course. Every course needs a practicum because it gives students a place to learn new skills and improve on what they already know. The opportunity to determine if the student is prepared for practice outside of the classroom is also considered a final exam at the same time (Venter, 2020). The purpose of the practicum is to give students a transitional experience between the classroom and the working world they will soon enter. For IT-related courses, they are expected to conduct their practicum in companies where they can experience programming, multimedia, and data analytics.

The purpose of the study is to evaluate the connection between students with BSs in information technology and computer science's laboratory performance and internship grades. The purpose of the study is to determine whether a student's success in the lab during their first year of college has an impact on how well they do in their practicum or internship.

II. RESULTS AND DISCUSSION

TABLE I: PROFILE OF THE GRADUATING BATCH OF SY 2021-2022 FOR BS INFORMATION TECHNOLOGY AND BS COMPUTER SCIENCE IN LEMERY COLLEGES IN TERMS OF GENDER AND PRACTICUM GRADES

Practicum Grade	Frequency	Percentage
96-100	26	50.98%
91-95	10	19.6%
86-90	7	13.74%
81-85	8	15.68%
75-80	0	0%
74 and below	0	0%
TOTAL	**51**	**100.00**
Gender	**Frequency**	**Percentage**
Female	20	39.22%
Male	31	60.78%
TOTAL	**51**	**100.00**

Table I presents the profile of the respondents in terms of practicum grades and gender. 26 or 50.98% have grades ranging from 96 to 100 in practicum. There are 10 or 19.6 students who got grades ranging from 91 to 95. 7 or 13.74% of the students got 86 to 90 grades on their practicum while the remaining 8 or 15.68% got grades ranging from 81 to 85.

Majority of the respondents which is 31 or 60.78% are male while the remaining 20 of 32.99% are female.

TABLE 2: PERFORMANCE INDICATORS FOR BS INFORMATION TECHNOLOGY AND BS COMPUTER SCIENCE STUDENTS IN TERMS OF INDIVIDUAL SKILLS AND LABORATORY PERFORMANCE

Performance Indicator	Weighted Mean
1. Follows safety procedures.	3.24
2. Performs accurately under pressure.	3.29
3. Recognizes errors.	3.31
4. Demonstrates problem-solving and critical thinking ability.	3.40
5. Learns new procedures in a reasonable amount of time.	3.48
6. Possesses technical skills to work effectively.	3.55
7. Has excellent performance in terms of designing.	3.57
8. Makes sound judgements.	3.60
9. Calculates, and interpret data accurately.	3.74
10. Plans and organizes work effectively and efficiently.	3.76
11. Recognizes limitations and seeks help when necessary.	3.83
Overall Mean	**3.52**

Table 2 presents the performance indicators for BS Information Technology and BS Computer Science students in terms of individual skills and laboratory performance. The result shows that the students got the highest score with a mean of 3.83 in the area of "Recognizes their limitation and seeks help when necessary". The second highest mean of 3.76 was garnered

by "Plans and organizes work effectively and efficiently". This relates to technical methods used in laboratories as well as equipment operating abilities. Before beginning real performances and experiments, students frequently seek instructors for the guidance and help they need. Students want to ensure that they are guided to minimize errors and be able to understand what to do inside the computer laboratory. Peer-assisted learning is a viable way of learning technical processes and can be equally as effective as the instruction delivered by an experienced academic staff, according to the study by Weyrich (2019).

The two lowest scores with weighted means of 3.24 and 3.29, were "Follows safety procedures" and "Performs accurately working under pressure". The result shows that students must strictly follow the safety regulations of the school since they are using computers inside the computer laboratory. Students must follow the Occupational Health and Safety (OHS) whenever they are doing laboratory exercises. Students must adapt to the pressure given by the instructors since it is their training and initial step to prepare themselves for the corporate world. An environment that is safe and healthy for workers may minimize injury and sickness expenses, lower absenteeism and turnover, boost productivity and quality, and improve employee morale. In other words, safety benefits the workplace. According to Cisco Press (2018), safe working circumstances assist avoid both injury and computer equipment damage. A safe workstation is spotless, well-lit, and well-organized. Everyone must be aware of and adhere to safety regulations.

TABLE 3: RELATIONSHIP BETWEEN THE PROFILE OF THE RESPONDENTS AND THE LABORATORY PERFORMANCE OF BS INFORMATION TECHNOLOGY AND BS COMPUTER SCIENCE STUDENTS

	R	p-value	Interpretation
Laboratory Performance Vs. Practicum Grades	0.59	0.000	Highly significant

The results of students' laboratory work in their professional topics and the internship grades that employers gave interns during their two-month internship duties are demonstrated in Table 3 to be highly significant. This shows how the laboratory practices, protocols, directives, and techniques taught by the School of Computer Studies faculty at Lemery Colleges adhere to the accepted quality system of associated businesses. As a result, prior to the internship program, students must enhance their knowledge, abilities, and attitude while working in the computer lab. The internship program considerably and favorably helps to strengthen the knowledge base and motivating level of students, according to a study by Madurapperuma & Thilakerathne (2019). This experience can help students grow professionally before joining the workforce and can make the following coursework more relevant.

III. CONCLUSION

Researchers came to the conclusion that there is a strong correlation between laboratory performance and academic internships under corporate supervision. The results contribute to a better understanding of the significance of performance indicator assessment in laboratory procedures. The second goal is to raise the standards of the quality indicators used to evaluate and track students' computer lab performance. The research recommended integrating academic success and student output at work to create more meaningful data for quality improvement.

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