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INTRODUCTION

RATIONALE

Success isn't always about greatness. It's about consistency. Consistent hard work leads to success. Greatness will come." Dwayne Johnson. He emphasizes that success is not always about achieving extraordinary feats or instant greatness. Instead, It's about being consistent in your efforts. This indicates that consistent hard work doing something well over and over leads to success, rather than aiming for greatness right from the start. Dwayne Johnson's quote emphasizes the importance of consistency in achieving success, which directly relates to your goal of obtaining the NC2 (National Certificate II). Earning this certification requires dedication, persistent effort, and regular practice in your field.

According to Sutrisno, S., et. al (2021) facilities and equipment play an important role in shaping a person's skills in various areas, particularly students studying Information and Communication Technology. For Grade 12 students pursuing National Certificate II in ICT at Meycauayan National High School. The adequacy of these resources plays a crucial role in shaping knowledge, academic outcomes, and preparing them for their professional careers.

The development of technology is fast in the current generation so there is a need for those with skills such as ICT professionals that make it essential for educational institutions to provide state-of-the-art facilities and relevant resources. This includes not only software and hardware tools but also an access to updated learning materials, conducive learning environment, and practical opportunities that align with industry standards. Based on the study of Suleiman, M., et al. (2020). The growing significance of Information and Communication Technology (ICT) in higher education. It highlights how ICT has transformed various sectors, including education, over the past two decades. Education traditionally reliant on strong personal interaction between teachers and students, is evolving with the integration of ICT, which promotes student-centered learning environments. As the world moves towards digital media and information, ICT's role in higher education is becoming increasingly vital. The article also emphasizes the effective use of ICT in teaching and learning, enhancing education's accessibility and consistency, and encouraging student engagement.



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In addition, it is necessary to have well-maintained and clean facilities as well as sufficient resources for students, especially ICT students, to achieve the National Certificate II. This is essential not only for the safety of the students but also to ensure that they are performing their tasks correctly because they are in the appropriate facilities, such as the computer lab or other relevant facilities. It is also important that ICT students have adequate access to equipment and resources so they can properly understand how and where to use the tools or equipment. This way, they will be able to study and perform the hands-on activities or assessments required by the Technical Education and Skills Development Authority (TESDA) correctly, in order to obtain the National Certificate II (NC II).

According to Zakaria, Z., et. al (2020) in the study "The Influence of Learning Facilities and Motivation on Student's Achievement" highlights that Achieving development goals through improving the quality of education is an effort to produce quality and professional human resources. The school is a place where the teaching process runs between teachers and students by maximizing the use of facilities to explore their potential and achievements. In the learning process motivation also plays an important role in the achievement of student learning activities. The learning process must also be supported by appropriate management, both internal and external. Lack of attention to this important component has an impact on the low effectiveness of learning, so it is considered necessary to do research related to improving the quality of education through learning facilities and student motivation in obtaining achievement. Based on the partial calculation, it was found that there was a significant influence of learning facilities and motivation on student achievement, it is necessary to pay attention to learning facilities and motivation to trigger student's achievement.

Therefore, it is important to assess the role of facilities and resources in the academic performance of Grade 12 Information and Communication Technology (ICT) students at Meycauayan National High School. This study aims to assess how the current state of facilities and resources impacts student's ability to achieve their National Certificate II and to identify areas where improvements can be made to enhance their learning outcomes and ensure they are well-equipped for the demands of the ICT industry.



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STATEMENT OF THE PROBLEM

GENERAL PROBLEM:

The General problem of this study is to figure out the Role of Information and Communication Technology facilities and resources in achieving National Certificate II Grade 12 students at Meycauayan National High School for the academic year 2024-2025.

SPECIFIC PROBLEM:

1. What is the profile of the respondents in terms of:
 - A. Age
 - B. Gender
 - C. Section
2. What challenges do ICT students of Meycauayan National High School face in assessing and utilizing ICT facilities and resources and how these challenges impact their ability to achieve NC II?
3. How do institutional factors impact the achievement of National Certificate II among Grade 12 ICT students in terms of:
 - A. Number of ICT facilities
 - B. Availability of Technical support
 - C. Quantity of Computer Resources
4. Are there significant differences in the academic performance of ICT students based on type of resources use?

RESEARCH HYPOTHESIS

Null Hypothesis (H_0): There is no significant relationship between the quality of ICT facilities and resources and the academic performance of ICT students preparing for NC II.

Alternative Hypothesis (H_1): There is a significant positive relationship between the quality of ICT facilities and resources and the academic performance of ICT students preparing for NC II.



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SIGNIFICANCE OF THE STUDY

The purpose of this study is to determine the role of ICT facilities and resources in achieving NC II in Grade 12 Information and Communication Technology students at Meycauayan National High School for the academic year 2024-2025.

ICT STUDENTS: The first one who will benefit the most are the ICT students, because of how facilities and resources enhances their skill and knowledge and their academic performance.

PARENTS: The parents will also benefit because of how facilities and resources can help their children to improve their academic performance.

JOINT DELIVERY VOUCHER PROGRAM: The JDVP minimizes the risk financially from ICT R&D. The program facilitates knowledge sharing and increases the outcomes of projects by easily accessing the knowledge owned by academicians.

SCHOOL ADMINISTRATOR: School administrators will also benefit because achieving certification can reflect to the school performance and good facilities can improve the schools reputation and attractiveness to student and parent.

LOCAL COMMUNITY: A well-trained ICT student is essential for local economic growth. It can result of skilled workforce that can contribute to the local community.

TVL TEACHERS: The one who will also benefit is the teachers especially to those teachers who have NC II, because they will have an effective equipment that they can use for more effective and engaging lessons.

LOCAL GOVERNMENT: The Government will also benefit in this because if the student have NC II, it can provide the ability to contribute to the local and national economy to ensure the supply of skilled professional to support development and maintain the technology infrastructure which essential for modern government.



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FUTURE RESEARCHERS: The researchers can use this as Information and also if they want to conduct a research related to this topic.

SCOPE AND DELIMITATION:

This study focuses on the importance of facilities and resources in achieving NC II in Grade 12 ICT students at Meycauayan National High School. The goal of the researchers is to enhance the skills and knowledge of Grade 12 ICT and also to improve their academic performance.

This Study is for Grade 12 students in the Information and Communication Technology strand and for the year 2024-2025. Our scope is also limited because we can only get data within the Meycauayan National High School, the weakness of this study is that the researcher did not experience assessment of TESDA to achieve NC II. But the researchers are studying css and they have a computer laboratory and also have good facilities and enough resources.

METHODOLOGY

RESEARCH DESIGN:

This research will employ a descriptive quantitative research design by collecting and analyzing data of numerical values to portray the existing conditions of the facilities and resources available for Grade 12 Information and Communication Technology (ICT) students of Meycauayan National High School. This will entail the administered structured surveys or questionnaires to solicit information regarding the available facilities adequacy, students' orientations on the learning set up, and the availability of the facilities.

Quantitative analysis will then be performed on the data to seek the existence of any patterns or trends which, in this case, enables one to put into numbers the extent to which these facilities affect students' performance in earning their National Certificate II (NCII) qualification. This method allows the measurement of the different elements affecting academic performance and reveals the specific aspects that need to be enhanced.



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POPULATION AND SAMPLE

The total population of Grade 12 Information and Communication Technology students is 139 students of Meycauayan National High School for the Academic year 2024-2025, compose of 4 sections, Hollerith, Babbage, Thompson and Pascal.

The researchers questionnaire was given to 28 students, because the target respondents of this research is 28 respondents which is the 20% of the total population of Grade 12 Information and Communication Technology Students of Meycauayan National High School for the Academic year 2024-2025. The researchers used random sampling where anyone in the Information and Communication Technology students has an equal chance of being selected. The researchers ensured that the information provided by the respondents are being protected.

DATA COLLECTION

The researchers created a survey questionnaire consisting of three questions related to the researchers study. The researchers survey questionnaire is revolves around the roles, challenges, effects, and the impact of (ICT) Facilities and Resources in achieving National Certificate II among Grade 12 students of Meycauayan National High School. The researchers created a consent form in order to ensure that the respondents are fully informed about the researchers study and agreeing to participate willingly.

The researcher's survey questionnaires used four choices that they can match or relate their experience and that is 4 Likert Scale. The researchers gave the survey questionnaires to (ICT) students from Hollerith, Babbage, Thompson and Pascal. When the respondents completed the survey questionnaires, the researchers collected the questionnaires and giving appreciation to the respondents of the researchers study.



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DATA ANALYSIS & INTERPRETATION

Table 1: Demographic Profile

Gender

MALE	13	46%
FEMALE	12	43%
LGBTQIA	3	11%
TOTAL	28	100%

Section

HOLLERITH	7	25%
BOBBAGE	7	25%
THOMSON	7	25%
PASCAL	7	25%
TOTAL	28	100%

Age

15-17	22	79%
18-20	6	21%
21-ABOVE	0	0%
TOTAL	28	100%

Arbitrary Table

1.00-1.74	Low Impact
1.75-2.49	Moderate Impact
2.50-3.24	High Impact
3.25-4.00	Very High Impact



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1. Among the challenges indication below in assessing and utilizing ICT facilities and resources and describe how these challenges impact your ability to achieve NCII by shading the number that relates to your needs.

Table 2.A Tally of Respondent

Q	4	3	2	1
1	13	11	3	1
2	11	12	5	0
3	10	11	6	1
4	5	14	7	2
5	9	9	7	3

Table 2.B Summary of A. The performance of the computer unit

Q	F(4)	F(3)	F(2)	F(1)	$\sum fx$	WAM	Interpretation
1	52	33	6	1	92	3.28	Very High Impact
2	44	36	10	0	90	3.21	High Impact
3	40	33	12	1	86	3.07	High Impact
4	20	42	14	2	78	2.78	High Impact
5	36	27	14	3	80	2.85	High Impact

In question number 1A, the weighted average mean of **3.03** which is **High impact**, suggests that they have a lot of difficulties to overcome in terms of the computer unit's performance due to the challenges they face, which hinder their potential to reach NCII.

Table 3.A Tally of Respondent

Q	4	3	2	1
1	13	13	1	1
2	8	17	3	0
3	5	14	8	1
4	14	4	4	1
5	2	12	10	4



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Table 3.B Summary of B. The quality of computer tools

Q	F(4)	F(3)	F(2)	F(1)	Σfx	WAM	Interpretation
1	52	39	2	1	94	3.35	Very High Impact
2	32	51	6	0	89	3.17	High Impact
3	20	42	16	1	79	2.82	High Impact
4	76	12	8	1	97	3.46	Very High Impact
5	8	20	4	4	68	2.42	Moderate Impact

On question number 1B, the weighted average mean of **3.04** which is **High impact**, it has a significant influence because more than half of our respondents have experienced software that lags religiously.

Table 4.A Tally of Respondent

Q	4	3	2	1
1	14	11	1	2
2	14	10	4	0
3	9	13	6	0
4	11	11	6	0
5	18	8	2	0

Table 4.B Summary of C. The computer application version

Q	F(4)	F(3)	F(2)	F(1)	Σfx	WAM	Interpretation
1	56	33	2	2	93	3.32	Very High Impact
2	56	30	8	0	94	3.35	Very High Impact
3	36	39	12	0	87	3.10	High Impact
4	44	33	12	0	89	3.17	High Impact
5	72	24	4	0	100	3.57	Very High Impact

Regarding query number 1C, the weighted average mean is **3.30** which is **Very high impact**, because the Windows operating system isn't upgraded, which prevents the new apps from accessing their full potential.



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Table 5.A Tally of Respondent

Q	4	3	2	1
1	3	21	4	0
2	13	11	4	0
3	12	9	5	2
4	10	11	7	0
5	9	10	8	1

Table 5.B Summary of D. The computer lab internet connection

Q	F(4)	F(3)	F(2)	F(1)	Σfx	WAM	Interpretation
1	12	63	8	0	83	3.28	High Impact
2	52	33	8	0	93	3.32	Very High Impact
3	48	27	10	2	87	3.10	High Impact
4	40	33	14	0	87	3.10	High Impact
5	36	30	16	1	83	2.96	High Impact

On question number 1D, the weighted average mean is **3.08** which is **Very high impact**, which has a significant impact since poorly calibrated equipment may give inaccurate information or operate poorly, producing erroneous results or data.

Table 6.A Tally of Respondent

Q	4	3	2	1
1	12	12	4	0
2	12	14	1	1
3	13	10	5	0
4	9	15	4	0
5	14	11	1	2



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Table 6.B Summary of E. The cleanliness of the computer laboratory

Q	F(4)	F(3)	F(2)	F(1)	$\sum fx$	WAM	Interpretation
1	48	36	8	0	92	3.28	Very High Impact
2	48	42	2	1	93	3.32	Very High Impact
3	52	30	10	0	92	3.28	Very High Impact
4	46	45	8	0	89	3.17	High Impact
5	56	33	2	2	93	3.32	High Impact

In question number 1E, because of the weighted average mean's **Very high impact** of **3.27**, ICT students are affected by inadequate storage since it limits their capacity to handle and save crucial files, programs, and projects.

2. Impact of institutional factors in achieving National Certificate II among Grade 12 ICT students?

Table 7.A Tally of Respondent

Q	4	3	2	1
1	14	10	4	0
2	18	8	1	1

Table 7.B Summary of A. Number of ICT Facilities

Q	F(4)	F(3)	F(2)	F(1)	$\sum fx$	WAM	Interpretation
1	56	30	8	0	94	3.55	Very High Impact
2	72	24	2	1	99	3.53	Very High Impact

The weighted average mean for question number 2A is **3.44**, which indicates a **Very high impact**; consequently, the E-tech Lab aids ICT students in enhancing their learning and preparing for their future careers.



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Table 8.A Tally of Respondent

Q	4	3	2	1
1	16	12	0	0
2	8	17	3	0
3	4	17	7	0
4	11	11	5	1
5	17	6	4	1

Table 8.B Summary of B. Availability of Technical Support

Q	F(4)	F(3)	F(2)	F(1)	$\sum fx$	WAM	Interpretation
1	64	36	0	0	100	3.57	Very High Impact
2	32	51	6	0	89	3.17	High Impact
3	16	51	14	0	81	2.89	High Impact
4	44	33	10	1	88	3.14	High Impact
5	68	18	8	1	95	3.39	Very High Impact

The weighted average mean on question number 2B is **3.23**, which has a **high impact** on the technical support's availability. As a result, the maintenance in the laboratory for computers is essential for the learning and development of ICT students.

Table 9.A Tally of Respondent

Q	4	3	2	1
1	13	12	0	3
2	15	9	4	0
3	10	14	4	0
4	10	15	3	1
5	9	14	4	1



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Table 9.B Summary of C. Quantity of Computer Resources

Q	F(4)	F(3)	F(2)	F(1)	$\sum fx$	WAM	Interpretation
1	52	36	0	0	91	3.25	Very High Impact
2	60	27	8	3	95	3.39	Very High Impact
3	40	42	8	0	90	3.21	High Impact
4	40	45	6	0	91	3.25	Very High Impact
5	36	42	8	1	87	3.10	High Impact

The weighted average mean of question number 2C is **3.24**, indicating a **high impact**. The education and career preparation of ICT students is greatly impacted by the availability of high-quality and quantity computer resources.

3.) Types of resources use affect the academic performance of ICT students.

Table 10.A Tally of Respondent

Q	4	3	2	1
1	18	8	1	1
2	15	11	2	0
3	19	9	0	0
4	22	5	1	0
5	10	11	7	0

Table 10.B Summary

Q	F(4)	F(3)	F(2)	F(1)	$\sum fx$	WAM	Interpretation
1	72	24	2	1	99	3.53	Very High Impact
2	60	33	4	3	97	3.46	Very High Impact
3	76	27	0	0	103	3.67	Very High Impact
4	88	15	2	0	105	3.75	Very High Impact
5	40	33	14	0	87	3.10	High Impact



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The weighted average mean on question number 3A is **3.50**, which has a **Very high impact** influence since ICT students' comprehension and academic performance can be improved with the correct resources.

Accordingly, as demonstrated by the total weighted average mean of **3.23**, that indicates **high impact** influence, the cleanliness of the computer laboratories promotes excellent behavior and health in addition to knowledge and responsibility among ICT students.

RESULT

1. What challenges do ICT students of Meycauayan National High School face in assessing and utilizing ICT facilities and resources and how these challenges impact their ability to achieve NC II?

The challenges faced by ICT students of Meycauayan National High School in assessing and utilizing ICT facilities and resources is the performance of the computer unit, the quality of computer tools, the computer application version, the computer lab internet connection and the cleanliness of the computer laboratory. These challenges had a HIGH IMPACT on ICT students with a weighted average mean (WAM) of 3.14, demonstrating that these challenges can hinder them to perform properly.

2.) How do institutional factors impact the achievement of National Certificate II among Grade 12 ICT students in terms of:

- A. Number of ICT facilities
- B. Availability of Technical support
- C. Quantity of Computer Resources

The number of ICT facilities, availability of technical support, and quantity of computer resources have a significant impact on Grade 12 ICT students in achieving the National Certificate II (NC2). The presence and adequacy of ICT facilities, technical support, and computer resources help students gain sufficient practical experience, resolve technical issues, and effectively engage with course content. In this way, their chances of successfully obtaining the National Certificate II increase.



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Based on the responses of the respondents, the impact of institutional factors on achieving the National Certificate II is high impact, as its weighted average mean (WAM) is 3.14, which indicates a high impact. This means that the number of ICT facilities, availability of technical support, and quantity of computer resources play a significant role in achieving the National Certificate II (NC2).

3.) Are there significant differences in the academic performance of ICT students based on type of resources use?

There is a significant difference in academic performance based on the resources used by ICT students. And it comes from these 4 factors, high-performing computer units, updated software, reliable internet, and well-maintained facilities all had a Very High Impact on student outcomes, with weighted average means (WAM) of 3.50, indicating that better resources lead to higher academic performance.

DISCUSSION

CONCLUSION

This study aims to identify some of the issues that Grade 12 Information and Communication Technology students confront at Meycauayan National High School due to the limited resources and facilities available in the school. These were identified from questionnaires exposing most of the problems encountered, such as outdated equipment and very limited opportunities for learning. It was hoped that better understanding of such problems and its possible solutions will ensure better ICT infrastructure enhancements in schools and improvement in the education system.

Through surveys, the researchers were able to properly collect the necessary data and made their findings. The Lack of computer and equipment are the reasons why there's a problem regarding to ICT facilities and Resources of grade 12 information and communication technology in Meycauayan National High School. However, challenges such as outdated equipment, insufficient resources, and limited access to hands-on learning opportunities remain obstacles. While analyzing the survey responses, the researchers were able to come up with new ideas and solutions thanks to the information they learned from the data they obtained.



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The goal of the study is to pinpoint the problem with the resources and facilities and offer suggestions for how to resolve it. As a result, the researchers decided that their investigation was complete since they had determined the problems relating to resources and facilities and had addressed some of the questions that the problem raised and that were essential to determining possible solutions.

RECOMMENDATIONS

The researchers want to recommend this following:

- The (ICT) students should check the school's ICT facilities (labs, equipment, software) to see if they fulfill the standards needed for National Certificate (NC2) certification.
- Researchers should assess the availability and quality of ICT resources (computers, internet access) in schools to determine how these factors impact their ability to achieve the National Certificate II (NC2).
- The School should Increase the hands-on activities that reflect practical Information and Communication Technology tasks to help students gain consistent, practical experience.
- The students must ensure to have access to up to date software, tools, and online learning platforms that align to the requirements of achieving National Certificate II (NC2).
- The researchers recommend that the school should invests in better equipment and maintains it regularly to ensure students can practice without interruptions.



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