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The Impact of Internet Access on Basic Information Technology for Educational Needs in Triple SB - National High School, Province of Zamboanga del Norte: A Proposed JRMSU Internet Cafe

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ABSTRACT

The study titled "The Impact of Internet Access on Basic Information Technology for Educational Needs in Triple S-B, Province of Zamboanga del Norte: A Proposed JRMSU Internet Café" was conducted at the national high schools in Triple SB during the school year 2024–2025**.** The research aimed to determine how hands-on Internet experience influences basic information technology knowledge and the lives of fourth-year high school students enrolled in these schools.

The respondents were selected randomly using the Slovin formula. A total of 300 fourth-year students participated in the study. A questionnaire checklist was used as the primary data-gathering instrument. Before its use, the questionnaire was tested for validity and reliability to ensure accuracy. After obtaining permission from the appropriate authorities, the researchers personally distributed and administered the questionnaires. Interviews were also conducted to clarify or complete unanswered questions from the respondents. The collected data were then tallied, analyzed, and interpreted using appropriate statistical tools.

The results revealed that most respondents recognized the importance of computer literacy in their studies. Many students reported that computer knowledge helps them perform academic tasks more effectively, particularly in solving mathematical problems**,** which ranked first among the survey results. The findings also indicated that Internet use significantly influences students' lives**,** especially by improving the speed and efficiency of communication.

Based on the findings, the researchers concluded that most respondents were female and non-working students**.** Many of their parents had incomes around the poverty level**,** and a number of students lived far from Internet cafés**.** Nevertheless, students believed that being Internet-literate provides significant advantages for learning**,** and Internet use greatly affects their daily lives and understanding of information technology.

Based on these conclusions, the researchers recommended that schools implement socialized tuition and matriculation fees to allow more students—especially those already knowledgeable in computers and the Internet—to pursue college education. The school administration should also provide more computers with Internet access to expand students' knowledge and keep them updated with modern technology. Computer instructors are encouraged to deliver effective instruction to develop competent and reliable computer-literate students. Furthermore, the college curriculum should integrate computer-based learning**,** which can be achieved through academic consultations within the institution. Finally, the establishment of more Internet centers is recommended to give students greater opportunities for hands-on Internet access, possibly through the support of technology-oriented entrepreneurs and investors**.**

Keywords: Internet Access for Education, Information Technology in Education, and Internet Café for Education

1. Introduction

The internet is a global network that connects millions of computers, allowing people to communicate, share resources, and access information. Through the World Wide Web and web browsers, users can retrieve data, communicate with others, shop, study, and perform many online activities. Unlike traditional media, the Internet enables direct communication between users without a centralized system.

The Internet plays an important role in government, business, education, and daily life**.** Governments use it for communication and information distribution, businesses use it for e-commerce and transactions, and educational institutions use it for research and online learning. Individuals also use the Internet for emailing, entertainment, banking, shopping, and social interaction.

Because of its flexibility, the Internet can connect different types and sizes of networks worldwide. It has significantly influenced people's lifestyles, learning methods, and communication. In areas such as Siocon**,** Sirawai, Sibuco, and Baliguian in Zamboanga del Norte, Internet cafés have helped communities access information technology, making communication, research, and job searching easier.

The study is based on Virtual Trust Theory (Alfredson, 2007)**,** which explains how Internet-based networks support communication, collaboration, and social movements. The research framework examines how Internet hands-on experience and factors such as gender, status, parents' income, residence, and frequency of Internet use affect students' knowledge of information technology. The expected outcomes include improved Internet skills, better problem-solving ability, enhanced computer knowledge, stronger study habits, and more efficient research work.

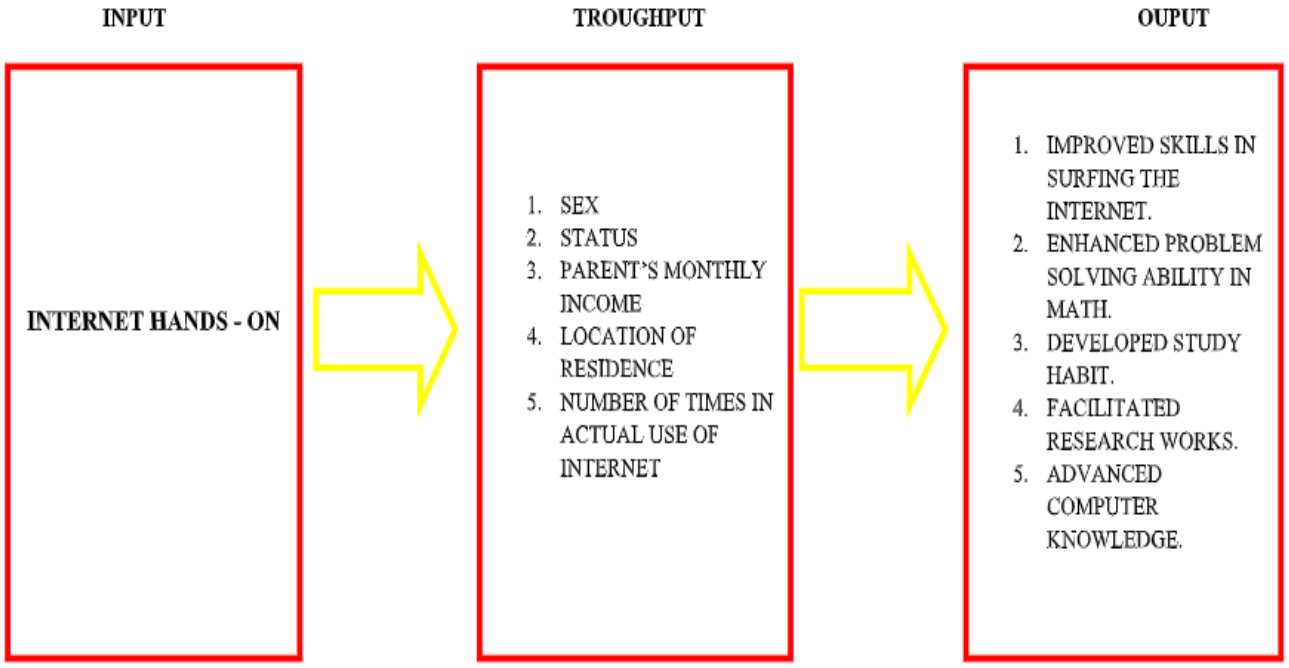

Figure 1: Conceptual Paradigm of the Study

This study seeks to determine the effect of Internet access on Basic Information Technology for educational purposes in Triple SB, Zamboanga del Norte. It particularly investigates whether practical or hands-on experience in using the Internet can help Grade 12 students acquire advanced computer skills that will better prepare them for college-level studies.

Specifically, the study aims to answer the following questions:

1. What is the profile of the respondents in terms of:
    1.1 Gender;
    1.2 Status;
    1.3 Parents' monthly income;
    1.4 Place of residence; and
    1.5 Frequency of Internet use?

2. What benefits do students gain from being Internet literate?
3. To what extent does hands-on Internet use influence the lives of students?
4. What are the effects of hands-on Internet experience on students' knowledge of Basic Information Technology?
5. How can an Internet Café Time-Billing System be effectively implemented at JRMSU?

2. Literature Review

The literature discusses the development, regulation, and impact of the Internet in society, politics, and education. In 1996, the Association of Southeast Asian Nations (ASEAN) met in Singapore to discuss ways of regulating Internet use. Although member countries such as Brunei, Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam agreed on the need to control harmful online content, they decided that each country should develop its own cyber regulations.

Research also highlights the historical development of the Internet from early network systems and bulletin board systems (BBS) into the modern global communication network. Studies show that Internet use influences various areas such as politics, governance, and social interaction**.** For example, some research indicates that the Internet can reinforce political participation among active users, while other studies show how governments regulate Internet access, as seen in China, where the Internet is viewed both as a tool for control and a platform for freedom.

Scholars also discuss the digital divide**,** which refers to differences in Internet access based on factors such as income, education, gender, and social status.

Related studies emphasize the importance of Internet and Information and Communication Technology (ICT) in education**.** Research by Sookram (2003) shows that ICT tools—such as email, blogs, and social networks—help improve learning, research, and communication among students and instructors. Another study by Noriko (2004) highlights how the Internet can influence political communication and civic engagement.

Overall, these studies support the idea that Internet access enhances communication, learning, and information sharing. The present study focuses on Grade 12 students in Triple SB, Zamboanga del Norte**,** examining how hands-on Internet experience can improve their basic information technology knowledge and educational development**.**

3. Methodology

This study employed a descriptive research design that focuses on examining the importance and use of the Internet. The researchers used this approach to gather information from fourth-year students of the National High Schools in Triple SB in order to determine the effects of hands-on Internet use on information technology knowledge.

The respondents of the study were fourth-year students officially enrolled during the school year 2024–2025 in the mentioned national high schools. As indicated in Table 1, the respondents were randomly selected from the total population of fourth-year students in each school. A total of 300 students participated in the study and served as the primary source of data and information for this research.

Respondents	Population	Sample Size
Siocon Science National High School	100	75

Baliguian National High School	100	75
Sibuco National High School	100	75
Sirawai National High School	100	75
Total	**400**	**300**

Table 1. Distribution of Respondents

The research instrument used in this study was first presented to the thesis adviser and later evaluated by experts in the field. To ensure its validity and reliability, the instrument was pilot-tested with students who were not included as respondents in the study. After the necessary revisions, the questionnaire was finalized and personally administered by the researchers.

A formal letter of request was sent to the school principal to seek permission to conduct the research. Once approval was granted, the questionnaires were distributed to the selected respondents. The researchers personally distributed and collected the questionnaires to ensure accurate data collection. The gathered data were then tabulated, analyzed, and interpreted using appropriate statistical methods.

The information obtained from the questionnaires was carefully tallied, examined, and interpreted. Data related to Problems 1 and 2 were analyzed using frequency counts and simple percentages. These statistical tools were used to determine the respondents' profile in terms of gender, status, parents' monthly income, place of residence, and frequency of Internet use. They were also used to rank the advantages of being Internet literate according to the responses of the participants.

1.) $P = \frac{\bar{f}}{N} \times 100$

Where:

f = number of responses
N = total number of respondents
P = percentage

The study also utilized the weighted mean to determine and interpret the degree of influence of hands-on Internet use on the lives of students**,** as well as to assess the impact of Internet hands-on experience on students' knowledge of basic information technology**.**

2.) $WX = \frac{\Sigma fW}{N}$

Where:

WX = weighted mean
ΣfW = summation of frequency and weight
N = number of cases

Slovin formula – this is use to obtain the sample size of the total population of respondents of this study.

3.) Formula: $n = \frac{N}{1 + Ne^2}$

Where:

n = sample size of the total population
N = total population
e^2 = margin of error pegged at 0.5

4. Findings

1. **Profile of the Respondents**

   1.1 Gender. More than half of the respondents were female, with a total of 87 respondents or 56.13% of the sample.

   1.2 Status (Working or Non-Working Student). The majority of the respondents were non-working students, totalling 139 or 89.68% of the participants.

   1.3 Parents' Monthly Income. The largest group of respondents had parents with a monthly income ranging from Php 6,000 to Php 10,000, with 56 respondents or 17.13%. On the other hand, the smallest group had parents earning Php 900 and below, with 11 respondents or 7.10%.

   1.4 Location of Residence. The findings showed that 68 respondents (43.87%) lived 1 kilometer or less from an Internet café, while only 8 respondents (5.16%) lived 5 kilometers or more away. This indicates that many respondents resided near the town center where Internet cafés are commonly located.

   1.5 Frequency of Internet Use. The results also indicated that most of the female respondents frequently used the Internet, identifying them as active Internet users.
2. Advantages of Being Computer Literate. The results revealed that 38 respondents (24.52%) believed that computer literacy provides significant benefits in academic studies, particularly in solving mathematical problems.
3. Extent of Internet Use in Students' Lives. The overall mean score of 3.86 indicated that the use of the Internet has an effective influence on the lives of students.
4. Impact of Internet Use on Basic Information Technology. The overall mean of 3.57 suggested that Internet use has a very effective impact on students' knowledge of Basic Information Technology.
5. Relationship Between Internet Hands-On Experience and Basic Information Technology. The results of the Scheffé Method revealed that there is a significant difference between Internet hands-on experience and Basic Information Technology in relation to students' lives.

5. Conclusion

Based on the results of the study, the researchers arrived at the following conclusions:

1. Most of the respondents are non-working students**.**
2. The parents' monthly income of many respondents falls within the poverty level**.**
3. The majority of the respondents are female**.**
4. A large number of respondents live near Internet cafés**.**
5. Having computer literacy provides significant advantages in academic learning**.**
6. The use of the Internet as a learning aid is highly effective in supporting students' academic activities.

7. Hands-on Internet experience has an impact on students' knowledge of Basic Information Technology**,** as moderately agreed upon by the respondents.
8. Based on the findings, the hypothesis of the study is rejected**.**

6. Recommendation

Based on the findings and conclusions of the study, the researchers propose the following recommendations:

1. The school should implement socialized tuition and matriculation fees to allow more students to enroll in college, particularly those high school graduates who are already knowledgeable in computers and Internet use**.**
2. The school administration should acquire additional computers with Internet access to expand students' knowledge and help them stay updated with modern technological developments**.**
3. Computer instructors should strive to provide effective and high-quality instruction to develop competent and reliable computer-literate students**.**
4. The college curriculum should integrate computer-based learning**,** which can be achieved through academic consultations across the institution.
5. More Internet centers should be established to provide students with greater opportunities for hands-on Internet access. This may be achieved by encouraging entrepreneurs and technology-oriented businesspeople to invest in such ventures.

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