Impact of Internet Connectivity on Academic Performance of First Year College of Computer Studies (CCS) Students at University of Immaculate Conception

Manlangit, Charlizze Arielle N.
Laeno, Marc Uriel Jairus A.
Quitoras, Lei Jiarhdyn G.
Opsima, Paul Lorenz C.
BSCS 1A

Background of the Study

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In the context of education, digital inclusion is not only linked to the availability of internet devices and networks, but also to the digital literacy of learners and teachers, and to the adequacy of institutional support and pedagogical policies **(Niemann et al., 2025)**.

A cross-country study by **Wu (2024)**:

- use of **digital technologies** in the **learning environment** can have a **positive impact** on **academic achievement** if supported by an **adequate infrastructure**
- **without equal access**, technology has the potential to **widen the educational gap**, particularly between students from high and low socio-economic groups
- access to the **Internet** is an important **pre-condition**, but it is **not sufficient** to ensure a **fair improvement** in **academic performance**

Background of the Study

01

However, there are **limited local research** that involve the impact of internet connectivity on academic performance of first year **College of Computer Studies (CCS) students**. By conducting this research, we will help address the gap by providing information in local context.

Statement of the Problem

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What is the level of Internet Connectivity among First Year CCS Students in University of the Immaculate Conception?

What is the level of Academic Performance of First Year CCS Students in University of the Immaculate Conception?

Is there a relationship between the level of Internet Connectivity and the level of Academic Performance of First Year CCS Students in University of the Immaculate Conception?

Objectives of the Study

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To identify the level of Internet Connectivity among First Year CCS Students in University of the Immaculate Conception.

To identify the level of Academic Performance among First Year CCS Students in University of the Immaculate Conception.

To evaluate the significant relationship between the level of Internet Connectivity and the level of Academic Performance of First Year CCS Students in University of the Immaculate Conception.

Significance of the Study

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- To gain information and provide knowledge in local context in the topic involving the impact of internet connectivity on academic performance of first year College of Computer Studies (CCS) students.

  - **First Year CCS Students**: understand connectivity-related academic challenges
  - **Teachers**: consider internet limitations in uploading activities
  - **Administrators**: Identify areas in internet-dependent activities needing support
  - **Future Researchers**: Use findings for related future studies

Scope and Delimitation

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- **Focus:** First-year College of Computing Studies (CCS) Students at University of Immaculate Conception
- **Internet Connectivity Indicators:** reliability, speed, availability, affordability
- Performance measured through students' self-reports
- Devices, digital skills, and study habits excluded
- Findings may not represent the whole university student body

Theoretical Framework

Technology Acceptance Model by Fred Davis, 1989

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- User’s actual system use is driven by a sequence of cognitive and affective responses:
- **Perceived Usefulness (PU):** The degree to which a person believes that using a specific system will enhance their job or task performance
- **Perceived Ease-of-Use (PEOU):** The degree to which a person believes that using the system will be free of physical and mental effort

When connectivity is reliable and fast:

- fewer technical barriers, making online learning tools easier and more useful to engage with
- enables students to complete their programming tasks on time, participate in class, and maintain high self-reported academic performance

Conceptual Framework

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Internet Connectivity
(Independent Variable)

- Reliability and stability
- Connection Speed
- Availability
- Affordability

Academic Performance
(Dependent Variable)

- Perceived General weighted average (GWA) or GPA
- Perceived Course grades
- Perceived Academic task completion

Methodology

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- **Design:** quantitative correlational research to describe relationship
- **Respondents:** first-year College of computer studies (CCS) students enrolled in UIC
- **Instrument:** structured questionnaire
- Participation is voluntary, with informed consent
- Responses will be reviewed before analysis

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Data Analysis

- Frequencies and percentages summarize categories
- Descriptive statistics summarize questionnaire responses
- Correlation tests examine the variable relationship
- Spearman or Pearson depends on assumptions
- A significant association does not prove causation

THANK YOU