Internet Connectivity and Academic Performace of BS Criminology in USST Colleges, Inc., Tarlac City

A Research Paper Presented to the
Faculty of the Graduate School
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In Partial Fulfillment
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Methods of Criminal Justice Research and Statistics

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ABSTRACT

BALAIS, HEHERSON; DOMINGGO, JOELY CHRYSTELE and ETONG, MARCIAL M. University of the Cordilleras, December 2021. Internet Connectivity and Academic Performance of Bs Crimininology Students at USST Colleges Incorporated.

This study dealt with the internet connection status among the students of USST College, Incorporated student and its relevance to their academic performance.

This study made use of quantitative approach. The participants of the research are 63 students from USST College Inc.

Specifically, it sought to determine first the Availability of internet connectivity among the students; a. Where do you frequently use the internet; b. What kind of internet connectivity are you using; c. How strong is your internet connection; d.

Why there is no internet connectivity at home. Second will be the available devices do you use in online learning. Lastly the effects of lack of internet connection in the academic performance of BS Criminology students at USST, colleges

The study showed the status of internet connectivity among the students of USST Colleges which are as follows;a) Majority have internet connection. b) Almost all of them utilized internet at home, c) Big percentage have utilizing WIFI, d) Average of internet connection among the participant is moderate, e) Mobile phone topped as gadget they use during distance learning. It also showed that that majority of the criminology students who were enrolled in United School of Science and Technology Colleges in Tarlac city agreed that lack of internet connection can causes the following factors to their academic performance: a. failure to do their assignments; b. they.

Cannot access their lessons that was sent through their respective learning management system and messenger; c. they cannot search for relevant ideas when making activities; d. they cannot watch video tutorials or pre-recorded discussions; e. they cannot perform well during class discussion compared to those with internet access; f. they are not updated with their topics in their online groups; g. lack of internet connection lessens their inquisitive thinking to learn something new; h. they cannot relate to the discussion; i. low performance during recitation; j. low scores during quizzes; k. late submission of requirements; l. Low score in practical activities.

CHAPTER ONE
THE PROBLEM

A. Background of the Study
"Education is the most powerful weapon you can use to change the world" a famous line of Nelson Mandela denotes how important education of transforming our place. Despite of the uncertain situation we are facing; the importance of education remains to be consistent.

The pandemic has brought a major shock to our educational system but the important thing is that we do not stop on delivering the education towards every student. Though our priority for now is the minimum health standards but for us educators we never say no to education because of this pandemic.

On March 2020 The Director General of WHO declared Covid-19 as a pandemic after assessment of the rapid spread and severity of the deadly virus across the globe with additional announcement of social distancing as a means of curbing the spread of the pandemic (WHO, 2020).

In response with the spread of COVID-19 poses a threat to humanity, as this pandemic has forced many global activities to close, including educational activities. To reduce the spread of the virus, education institutions have been forced to switch to e-learning using available educational platforms, despite the challenges facing this sudden transformation.

In order to further explore the potentials challenges facing learning activities, the focus of this study is on e-learning from students' and instructor's perspectives on using and implementing e-learning systems in a public university during the COVID-19 pandemic (Maatuk, 2021).

In connection with this Social distancing is conscious increment in the physical gap between people in order to curb dissemination of disease (Red Cross, 2020).

Online learning is the use of internet and some other important technologies to develop materials for educational purposes, instructional delivery and management of program (Fry, 2001).

The 21st century has brought about a massive change in the world of education. Gone are those days when teaching was limited only within the confines of a classroom. The internet has brought about a paradigm shift in the fundamental way in which learning is done. It has taken learning beyond the hallowed walls of the universities and into the palms of everyone. (Sarkar, 2020).

However, Tom (2017), stated that the concept of e-learning in not new for it can be trace back 170 years ago where instructor/ professor sent task and receive assignment through email. This was the humble beginning of the concept of online learning.

Long before the internet was launched, distance courses were being offered to provide students with education on particular subjects or skills. In the 1840's Isaac Pitman taught his pupils shorthand via correspondence. This form of symbolic writing was designed to improve writing speed and was popular amongst secretaries, journalists, and other individuals who did a great deal of note taking or writing. Pitman, who was a qualified teacher, was sent completed assignments by his students via the mail system and he would then send them more work to be finished (Gogos, n.d.).

One of the first instances of online learning in the world can be traced back to 1960, at the University of Illinois, USA. Though the internet wasn't invented back then, students began learning from computer terminals that were interlinked to form a network (Sarkar, 2020).

In addition, the Explore Talent LMS stated that, first online learning systems were really only set up to deliver information to students but as we entered the 70s online learning started to become more interactive.

In Britain, the Open University was keen to take advantage of e-learning. Their system of education has always been primarily focused on learning at a distance. In the past, course materials were delivered by post and correspondence with tutors was via mail. With the internet, the Open University began to offer a wider range of interactive educational experiences as well as faster correspondence with students via email etc. (Explore Talent LMS, n.d.).

In support, according to Sarkar on 2020, "the Open University in Britain was one of the first universities in the world to begin online distance learning, in the early 1990s. Currently, the Indira Gandhi National Open University in India is the largest university in the world with around 4 million students enrolled, most of whom currently receive education via online methods."

Online learning is the newest and most popular form of distance education today. Within the past decade it has had a major impact on post-secondary education and the trend is only increasing (Stern, n.d.).

In transition, the term "e-learning" has only been in existence since 1999, when the word was first utilized at a CBT systems seminar. Other words also began to spring up in search of an accurate description such as "online learning" and "virtual learning" (Gogos, n.d.).

Online learning is education that takes place over the internet. It is often referred to as "e-learning" among other terms. However, online learning is just one type of "distance learning" the umbrella term for any learning that takes place not in a traditional classroom (Stern, n.d.).

According one research that is conducted by Merlot Journal in 2015 shows that there is strong evidence to suggest that online learning is at least as effective as the traditional format. Online learning is a story that is still being written, and how it progresses will likely depend on those present (Nguyen, 2015).

In addition, there are some advantages and disadvantages of online learning; the accessibility of online education globally, saving time, money, and efforts are advantages of online learning. In teaching, the lecture's recording is one advantage of online learning when students ask teachers to record the classes.

The teachers are reviewing and preparing well for recording, which certainly improves teaching strategies and methods. Students can access the lectures anytime and can understand better. Not all learners have good internet connectivity. Some learners suffered from network problems, lacking high-quality learning devices (Mahyoob, 2020).

One of the challenge of this e-learning concept is the poor slow internet connection. According to one study, slow Internet connections or limited access from homes in rural areas can contribute to students falling behind. The educational setbacks can have significant impacts on academic success, college admissions and career opportunities (MSU, 2020).

The use of the Internet for learning is seen as a means to improve accessibility, efficiency and quality of learning by facilitating access to resources and service as well as remote exchanges and collaboration (Kamba 2009).

Students with no high-speed Internet access at home are also less likely to plan to attend a college or university. On the other hand, students with Internet access have substantially higher digital skills, which are a strong predictor of performance on standardized tests (MSU,2020).

According to Ivwighreghweta (2014), internet has opened the door to a new way of learning. However, there is a challenge brought by internet connectivity. Internet access it will become possible for users to browse within the environments and thus enhance access to information needed specially to enhance academic performance.

Hiltz and Turoff (2005) argued that the contemporary transformation will be seen as revolutionary modifications in the specifications of higher education as a process and as an institution in the next 50 years because the transformation has moved face-to-face instructional programs using objectivist, for thousands of home-grown, provincial and domestic universities to online and hybrid programs applying digital technologies in enhancing constructivist, learner-centered, cooperative pedagogy for some hundred "mega-universities" that function worldwide.

In the Philippines, the term "e-learning" is used synonymously with online learning and concerns the online delivery of instructional content as well as associated support services to students. This was used even before this pandemic, adopted on the concept of Open University (Dela Pena, 2009).

Accordingly, university learning center to more extensive use of a learning management system (LMS) as a venue for academic discussions as well as learning assessments, sharing learning resources and content, and students' submissions of course requirements.

However, in 2020, In the Philippines, this translates into almost 325,000 infected and 6,000 deaths (Worldometer, 2020). To curb the spread of COVID-19, most governments have opted to employ quarantine protocols and temporarily shut down their educational institutions. Among this number are over 28 million Filipino learners across academic levels who have to stay at home and comply with the Philippine government's quarantine measures (UNESCO, 2020).

To respond to the needs of learners, especially of the 3.5 million tertiary-level students enrolled in approximately 2,400 HEIs, certain HEIs in the country have implemented proactive policies for the continuance of education despite the closure. These policies include modified forms of online learning that aim to facilitate student learning activities (Joaquin, 2020).

The Philippine education system is struggling to adapt to the sudden and major shift to distance learning during the Covid-19 pandemic.

Over the years, the overall internet connection speed in the Philippines remains among the slowest in the Asia Pacific region. That is despite having the highest average daily time spent using the internet in the region (Statistica, 2021).

In January 2021, the Philippines moved up to the 86th spot in the global mobile internet speed rankings, according to data from an Ookla report. This is a marked improvement from its 111th rank in the same period last 2020 (DICT, 2021).

Slow internet connectivity hampers Filipinos in their work, streaming, and downloading of videos, which include the online educational performance of the students (Statistica, 2021).

In support with the statement above a mother claimed that the only wrinkle to online learning is the intermittent internet connectivity in the country. When there is an internet outage, children's classes are canceled too (Dollanganger, 2021).

The numbers don't lie. A poor showing in the study reflects the sorry state of connectivity in the Philippines, and this is negatively affecting the lives of Filipino student's (Esquire Philippines, 2020).

According to a news articles it state that "Truth be told, our country is an internet-challenged country. A problem that had caused delays implementing remote learning in general. Although internet plans exist; they are not, however, created equal. Hence, in online classes, there was never a day when a student hasn't voiced out complaints such as "Can someone tell the professor I/he/she got disconnected?" "Oops! Where did he go? (referring to the professor who doesn't realize he got cut off), "I have unstable Wifi", "Do you guys see/hear me?". We are in the city and yet we experience such mishaps. What more are those students who are stuck in remote places where signal isn't as strong as what we city dwellers have? They are forced to "move mountains" just to get a bar or two" (Amadora, 2020).

Other factor to considered is the family situation, families who have more disposable income find themselves in a more fortunate situation (Dollanganger, 2021).

Since the conduct of online learning, some of the BS Criminology students of United School of Science and Technology (USST), Inc. encountered problems such as poor internet connectivity, power interruptions, and slowness of the platform used in terms of fulling their academic requirements in their respective subjects. Furthermore, with the implemented online learning system not all students have technological knowledge and significantly the resources. Some only rely on data connection and others only use smartphones in attending their classes and in doing and submitting their academic requirements.

Having all these said, the researchers are convincing that the conduct of this study is indeed timely and relevant for the Bachelor of Science in Criminology students of United School of Science Technology (USST), Inc. In this study, the main objective is to measure the impact of internet connectivity in to the academic performance of the BS Criminology students of USST, Inc., Tarlac City. It will be anchored by preliminary identifying the internet connectivity and access of the students and then looking into the relationship of internet connectivity with the academic performance of the students in online learning. Appropriate measures will be proposed as a result of this investigation that may potentially and positively impact the learning experience of the BS Criminology students, instructors, and management of USST Colleges, Inc.

B. Theoretical/Conceptual Framework

➢ *Theoretical Framework*

The academic setting was temporarily crippled worldwide due to the effect of pandemic, however, it does not hinder the persistence of every learners and educators, thanks to the development of technology because we have the internet platform to serve as a classroom for the students and educators.

This adaptation of the internet platform as an alternative for face to face class has been explained by the **Uses and Gratification Theory**, wherein as a result of the pandemic the students and educators are in need of possible way to continue their education, hence, they have utilized the internet platform to gratify their needs.

The result of this study will confirm if the internet platform can really gratify the standard of education especially to a criminology student who were required to conduct practical exercises to gain the required knowledge in most of their courses.

The **Observational learning theory** can explain the positive effect of internet platforms towards the students because educators are using online meeting which can be recorded and can be reproduced for the students to have further reference, another is that educators can utilize the YouTube as their visual aid, hence students can download and review such recorded discussions or video/s.

The advantage of such approach is that the students can repeatedly view it until such time that it contents will retain to the student's mind and they can apply what they have observed.

Another is that the internet platform maintains a connectivity between the students and teachers, in relation, the **Connectivism theory** explains that people will learn and grow when they have connection with each other.

As a result, the internet connection as one of the latest mode of communication helps every student in maintaining connection with their teachers and vice versa. Hence, the study will further explain this connection between students and their teachers as well as to discuss its effects and impact to their academic performance specifically the criminology students of United School of Science and Technology Inc. in Tarlac City Philippines.

In addition, Salac and Kim (2016) claims that compared to other neighboring Asian countries, the Philippines has an average internet speed of 2.8 Mbps whereas, Thailand had an average internet speed of 7.4 Mbps, Sri Lanka 7.4, and Malaysia 4.3, placing the country at 104 among 160 countries, with developed countries in Asia such as South Korea (23.6 Mbps) and Singapore (12.9 Mbps) ranking 1 and 12, respectively. The poor quality of internet connection may cause delay or absences during classes which will have a direct impact to the academic performance of every student.

In support, Jurado, et.al.,(2010) claims that limited internet access is a major concern in implementing blended learning, whereas, Rotas and Chapay (2020) revealed in their study that there are twelve themes that causes difficulties as experienced by the university student in the Philippines regarding the online learning system, and these are: unstable internet connectivity; inadequate learning resources; electric power interruptions; vague learning contents; overloaded lesson activities; limited teacher scaffolds; poor peer communication; conflict with home responsibilities; poor learning environment; financial related problems; physical health compromises; and mental health struggles. One of these factors revealed in the study is the poor internet connectivity, this only shows that from 2016 to 2020 the Philippine average speed of internet connectivity does not improve.

Furthermore, Bautista, J.(2021,Sept.20) Reported that with the current setup of blended learning due to the pandemic, students have resorted to online cheating via a Facebook group where they share notes and test answers. The "Online Kopyahan" community group has been created, and had at one point more than 600,000 members, but after a local television report aired, the now-archived Facebook group was left with 571,900 members. This data shows that aside from internet connectivity, online cheating will affect the academic performance of the students.

In addition, Singh (2014) concludes that most of the undergraduate students' use the internet for entertainment, social and education objectives. They use it minimum for their academics and knowledge.

Lastly, the aforementioned theories and concepts will be confirmed by the result of this study.

➢ *Paradigm of the Study*
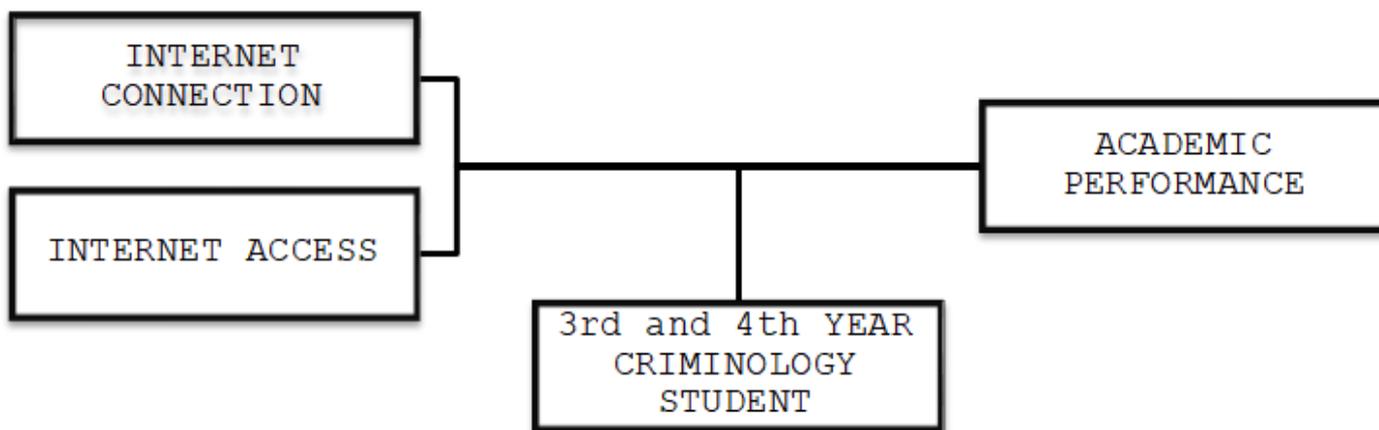
Fig 1 Paradigm of the Study

This study aims to determine the status of internet connection of the 3rd and 4rth year criminology students of United School of Science and Technology (USST)in Tarlac city during their online classes as well as its effects or impacts to their academic performance during such classes.

C. Statement of the Problem

This study aims to determine the impact of internet connectivity in the academic performance of BS Criminology students in USST, Tarlac City.

➢ *Specifically, it will Answer the following questions:*

- What is the nature of accessing the internet by the respondents?
- What is the level of agreeableness on the negative effect of no or lack of internet connection on the academic performance of the respondents?

D. Definition of Terms

➢ *Academic performance*

Academic performance is the outcome of education— the extent to which a student, teacher or institution has achieved their educational goals (Annie, Howard & Mildred, 1996 as cited by Arshad et al. 2015).

➢ *Availability of Internet Connection*

Availability of Internet Connection refers to the availability of internet services such as loading station, network provider and etc.

➢ *Distance Learning*

A method of study where teachers and students do not meet in a classroom but use the Internet, e-mail, mail, modules, etc., to have classes.

➢ *Internet*

Abubakar D. and Diyoshak, R. (2015) defined internet as a collection of computers and computer Networks located all over the world, all of which share information established upon Internet protocols.

➢ *Internet Connectivity*

The term "Internet connectivity" refers to the way people are hooked up to the Internet, and may include dial-up telephone lines, always-on broadband connections, and wireless devices.(encyclopedia.com)

➢ *Internet access*

Internet access is the process of connecting to the internet using personal computers, laptops or mobile devices by users or enterprises. Internet access enables individuals or organizations to avail internet services/web-based services (Technopedia, 2016).

➢ *Lack of Internet Connection*

Lack of internet Connection is the absence of internet signal.

➢ *Moderate Internet Connection*

Experiencing moderate speed of internet connection. Characterized by more than 1 Mbps on downloading and uploading speed.

➢ *Poor Internet Connection*

Download and upload speed is less than 1 Mbps are too slow. Users may experience buffering when streaming video, difficulty connecting multiple devices and other internet connectivity issues (Anders, 2021).

➢ *Strong Internet Connection*

Internet download speeds of 20 Mbps or higher are often considered fast internet because they can handle multiple online activities for multiple users at once without major interruptions in service issues (Anders, 2021).

CHAPTER TWO
DESIGN AND METHODOLOGY

A. Research Design and Mehodology

The research method that will be use by the researchers is descriptive. According to Aggarwal (2008) cited in Salaria (2012) descriptive research is devoted to the gathering of information about prevailing conditions or situations for the purpose of description and interpretation. The descriptive method is use in this study to determine the effect of no internet connectivity on the academic performance of the BS Criminology of United School of Science in Technology Colleges, Inc. The researchers decided to utilize this approach for it is the goal of the study to obtain a reliable and first-hand data in the establishment of a credible conclusion and recommendations.

B. Population and Locale of the study

The respondents of the study are the third and fourth year B.S. Criminology students of USST Colleges, Inc. in San Isidro, Tarlac City, Tarlac who are enrolled in the current academic year 2021-2022.

The sampling method that will be use in the study is total enumeration sampling. According to Kanpur (n.d) total enumeration sampling is the collection of information on the whole population.

C. Data Gathering Tools

The main instrument to be used in the study is a survey questionnaire. Surveys and questionnaires are designed to collect and record information from multiple people, groups or organizations in a consistent way (Intrac, 2017).

The survey questionnaire has two parts. The first part includes the basic demographic profiles of the students. The second part assessed the internet connectivity and access of the students.

The last section assessed the effect of no internet or lack of internet connectivity on the academic performance of the respondents. Survey questionnaire will be in the form of Google Forms and will be sent to the respondents via messenger or electronic mail.

D. Data Gathering Procedure

The researchers will first seek the permission of the research adviser to proceed with the collection of data. After the approval, the researchers will prepare and send a letter to the Dean of Criminology Department of United School of Science and Technology Colleges, Inc. to allow the researchers to conduct the study and float the questionnaires to the determined respondents. If approved, the researchers will now proceed in sending the web-based questionnaires to the respondents via messenger or electronic mail.

Instruction will also be provided to the respondents before answering the questionnaire. The respondents are given one week to accomplish the said questionnaire. After which, the collection of data will be stopped or closed. Since total enumeration is used as the sampling method all the respondents are expected to answer.

However, if there are respondents who are not determined to answer due to some reasons, the researchers will not force them to answer and only those collected responses will be considered for interpretation and analysis of data. Virtual interview will also be done to validate the information stated in the survey questionnaire. The virtual interview will be done via zoom or google meet.

The raw data gathered will be treated and analyze for interpretation, conclusion, and recommendation. The researchers also treat all the personal information of the respondents/participants as confidential, hence, their names are hidden.

E. Treatment of Data

The researchers will use weighted mean to interpret the data collected. According to Clark-Carter (2010) the weighted mean involves multiplying each data point in a set by a value which is determined by some characteristic of whatever contributed to the data point.

The data is calculated by adding up all the responses and dividing the sum total by the total number of respondents to get the mean. In getting the weighted mean, the following formula will be used:

$$\overline{X} = \frac{\Sigma X}{N}$$

➢ *Where*

- X̄ = population mean
- ΣX = sum of each value in the population
- N = number of values in the population

Triangulation method will also be used in the study. Triangulation is a technique to analyze results of the same study using different methods of data collection. It is used for three main purposes: to enhance validity, to create a more in-depth picture of a research problem, and to interrogate different ways of understanding a research problem.   (Nightingale, 2009).

Triangulation will be helpful in the study to further understand the effect of no or lack on internet connection in the performance of B.S. Criminology students.

CHAPTER THREE
PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the analysis and interpretation of the findings based on data gathered from the research participants from the criminology students at USST Colleges, Inc. as to internet connection status which includes; the availability of internet connection, how strong is the internet connection of the student and the devices utilized. It also includes the agreeableness of the participant on the effect of internet connection on their academic performance.

A. Internet Connectivity of the Student of USST College Inc.
Table 1 shows as the percentage who among the student of USST College Inc. have and have no internet connection during distance class.

As shown on the table, there are only 79.4% among the 63 research participant who have internet connectivity during the distance learning. This implies that majority of the research participant have an internet connection while having their distance learning as shown by the percentage.
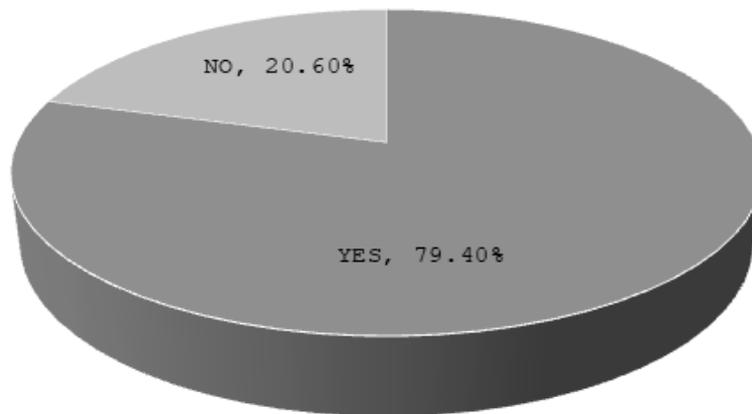

Table 1 Internet Connection Availability

➢ *Frequent Place of Internet Connection Usage*
Table 2 displays as to where student of USST College Inc. utilizing internet connection during distance learning.

As shown on the table, 100% among the 50 research participant who answered that they have internet connection are using their internet connection at home. This implies all that research participants who said yes on the availability of internet connection are studying at home.
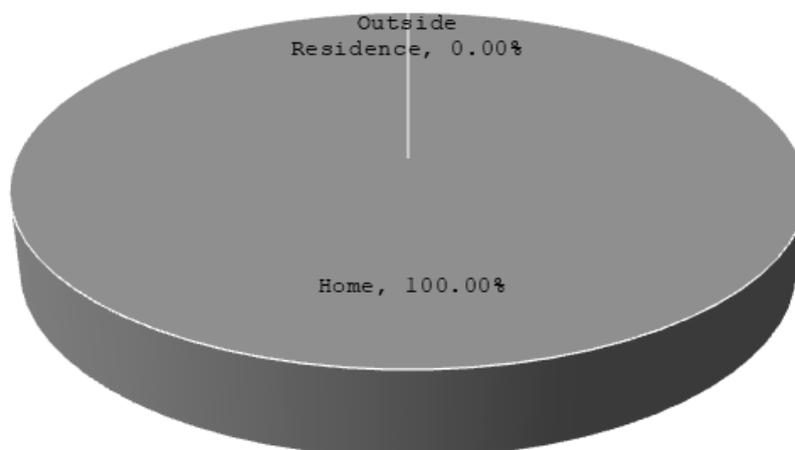

Table 2 Place of Internet Connection Usage

➢ *Kind of Internet Connection*
Table 3 presents the kind of internet connection among the student of USST College Inc. while on distance learning.

As shown on the table, 100% among the 50 research participant who answered that they have internet connection are using their internet connection at home. This implies all that research participants who said yes on the availability of internet connection was studying at home.
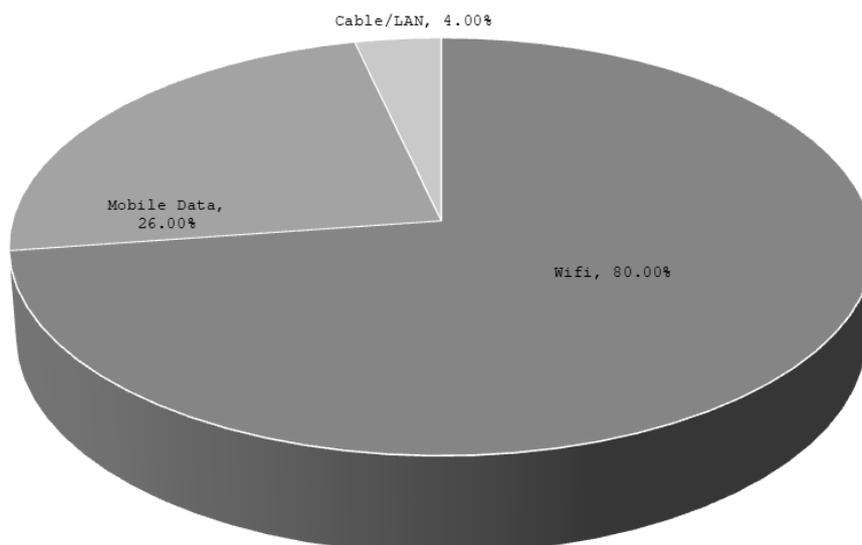
Table 3 Kind of Internet Connectivity

➢ *Strength of Internet Connection*
Table 4 project the strength of internet connection of the 50 research participants who have the availability of internet connection during distance learning.

As projected on the table, large percentage among the 50 research participant who answered that they have internet connection have a moderate strength in terms of internet speed and connection with an average of 74%, compared to those research participant who have a poor internet connection with only 8%. It only means that most of the student of USST College Incorporated are an average of moderate to strong internet connectivity.
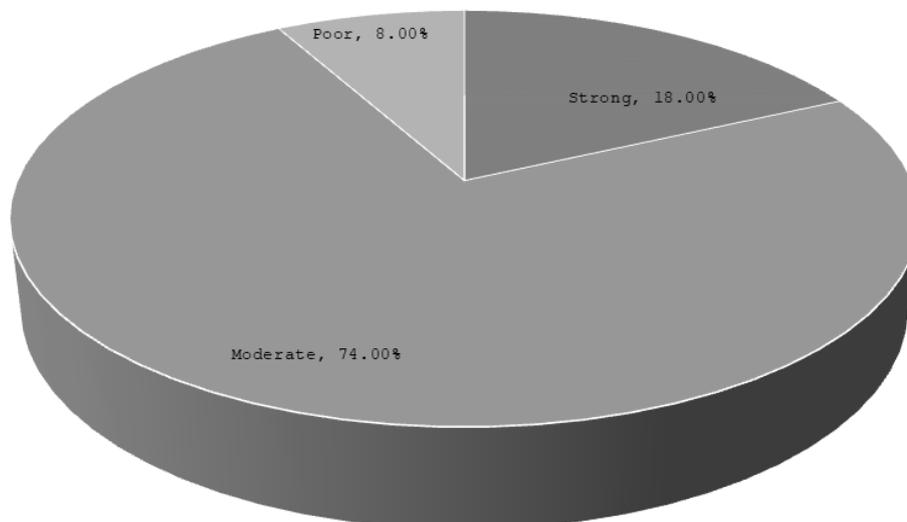

Table 4 Strenght of Internet Connection

➢ *Reason of No Internet Connectivity*
Table 5 shows us the percentage on the three main reason of why there is no internet connection among 13 of the research state that they have no internet connection.

As provided on the table, internet is costly, as a reason on the absence of internet connection has the largest percentage with 38%, followed by the two remaining reason with the same percentage. This implies that the three reason was almost on the same percentage on why some of the participant do not have internet connection. Every student has their own reason on why they do not have internet connection.
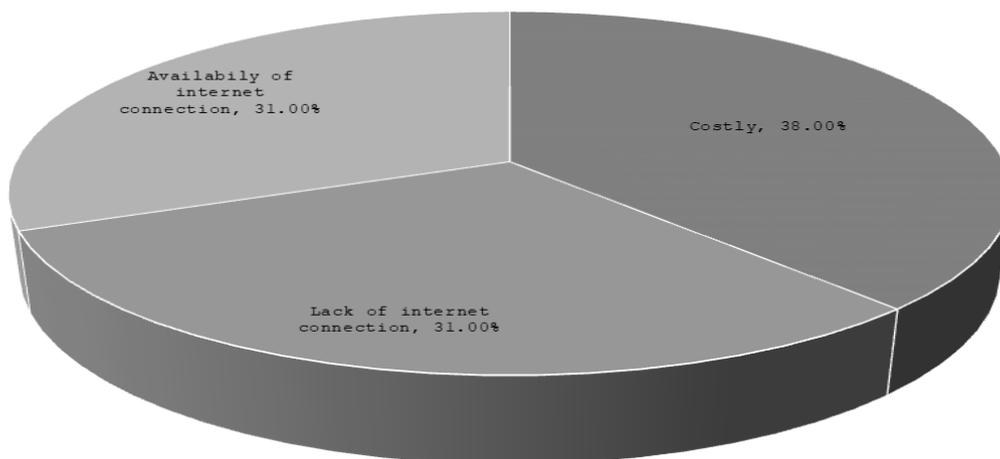
Table 5 Reason of no Internet Connectivity

The data above shows that there the majority can avail internet connection for their online class which can be a big factor on the academic performance of the student.

The data shows that internet connection as to the students of USST College Incorporated is almost far from no problem. However, there is a problem on the student of the USST College Incorporated in terms of Internet Access and Connection. While it true that majority of the research participants have their internet connection but there is an issue in terms of the strength of the internet connectivity as showed by the data above.

Remember that Salac and Kim claims in 2016 that the Philippines has an average internet speed of 2.8 Mbps which is slow that compared to other neighboring Asian countries.

This problem was shown on the data that most of the student have only the average in terms on the strength on their internet connection. This was supported by the reason on why some of the student do not have internet connection.

However, In January 2021, the Philippines moved up to the 86th spot in the global mobile internet speed rankings, according to data from an Ookla report. This is a marked improvement from its 111th rank in the same period last 2020 (DICT, 2021).

B. Internet Connectivity of the Student of USST College Inc.
Table 6 shows as the percentage on what gadget/s are the student of USST College Incorporated using while on distance class.

As presented on the table, there are only 96.8% among the 63 research participant were utilizing their mobile phone on their distance learning. On the other hand, laptop/MacBook followed as the second percentage with 14.3%, personal computer with 11.10% and lastly, the tablet with only 3.2% only. This states that mobile phone is the mostly used gadget by the participant on attending on their distance learning. The percentage also shows that some student utilized more than one gadget.
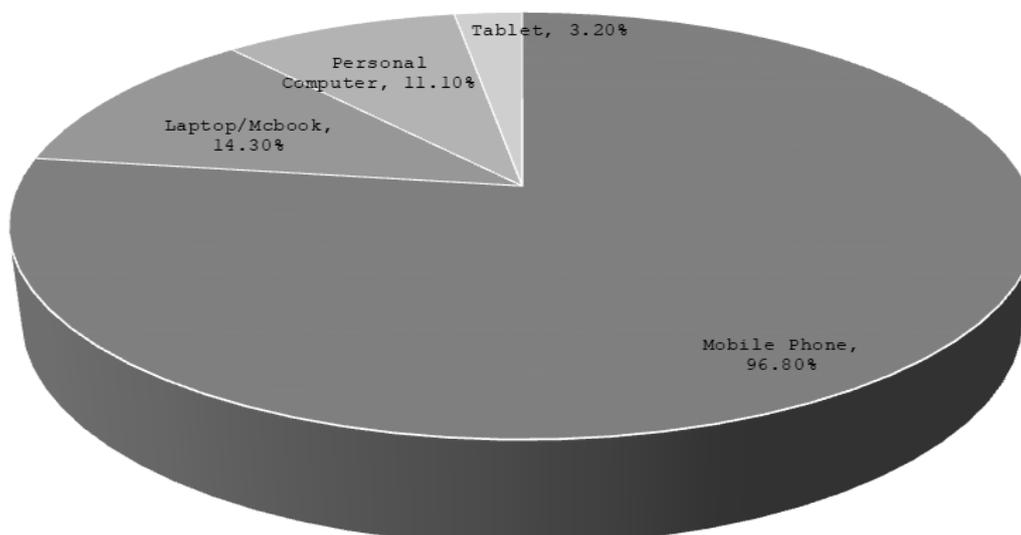

Table 6 Devices Utilized During Distance Learning

Data tells us that almost 100% of the student utilized mobile phone on their distance learning. According to many of participant mobile phone is very efficient on online learning due to its portable and mobility feature. Since sometimes there was the loss of internet signal mobile phone allows student to hunt for signals.

According to Holland and Kelloggon 2020 students lack either high-speed internet or computers, but teachers and student can use phones for both academic and community-building purposes.

Table 7 If The Students have No Internet Access at Home

S No.	Indicator	Mean	Description
1	I cannot do my assignment.	2.67	Agree
2	I do not have access in lessons sent through our earning management system and messenger.	2.75	Agree
3	I cannot search for relevant ideas when making activities.	2.87	Agree
4	I cannot watch video tutorials or pre-recorded Discussions.	2.95	Agree
5	I cannot perform well in class during discussions compared to those with internet access	2.86	Agree
6	I am not updated with the topics in our online group.	2.70	Agree
7	It lessens my inquisitive thinking to learn something new.	2.89	Agree
8	I cannot relate to the discussions.	2.60	Agree
9	I got low performancein our recitation.	2.76	Agree
10	I got low scores in our quizzes.	2.67	Agree
11	I passed my projects beyond the given deadline.	2.97	Agree
12	I got low performance scores during practical activities.	2.71	Agree

C. The Effects of Lack of Internet Connection In The Academic Performance Of BS Criminology Students At USST, Colleges
Table 7 presents the effects of lack of internet connection among the criminology students of USST colleges in Tarlac city.

➢ *The table manifested that majority of the criminology students who were enrolled in United School of Science and Technology Colleges in Tarlac city agreed that lack of internet connection can causes the following factors to their academic performance:*

- Failure to do their assignments
- They cannot access their lessons that was sent through their respective learning management system and messenger.
- They cannot search for relevant ideas when making activities.
- They cannot watch video tutorials or pre-recorded discussions
- They cannot perform well during class discussion compared to those with internet access.
- They are not updated with their topics in their online groups.
- Lack of internet connection lessen their inquisitive thinking to learn something new.
- They cannot relate to the discussion.
- Low performance during recitation.
- Low scores during quizzes.
- Late submission of requirements.
- Low score in practical activities.

Furthermore, it was disclosed from the data gathered that the most dominant factor agreed upon by the respondents were their failure to submit their assigned projects on time due to lack of internet connection, this was attested by its mean of 2.97 as the highest mean in the data, whereas the least factor agreed upon by the respondents is they cannot relate to the discussions due to lack of internet connection, this was corroborated by its mean of 2.60 as the lowest mean among other factors.

In support, a study initiated in Michigan State University by Hampton, et. Al.(2020) found out that students who do not have access to the Internet from home or are dependent on a cell phone alone for access perform lower on a range of metrics, including digital skills, homework completion, and grade point average. They are also less likely to intend on completing a college or university degree. A deficit in digital skills compounds many of the inequalities in access and contributes to students performing lower on standardized test scores, such as the SAT, and being less interested in careers related to science, technology, engineering, and math.

CHAPTER FOUR
CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusions and recommendations of this research.

A. Conclusions

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

➢ *Despite of being costly, wifi connection is the main internet connectivity of the students in attending online classes.*
➢ *The students generally agreed that having no or lack of internet connection at home may have a negative effect on their academic performance.*

B. Recommendations

Based on the conclusions of this study, the research recommends the following:

➢ *Considering that the results yielded that majority are connected to WI-FI connection, the focus must be on other aspects such as mental health, time management, and good study habits in online classes. The school may organize webinars in relation to such topics.*
➢ *To secure that every student of USST Colleges, Inc., are connected to the internet, the school may tie up with an Internet Service Provider to arrange for cheaper but strong internet connection per student account.*

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APPENDEX

A. *Dear Respondents:*

Greetings! Please complete this questionnaire accurately and truthfully. Your responses will be used for research purposes to assess the impact of internet connectivity amidst the pandemic on the academic performance of students. Your answers to this survey will be treated with strictest confidentiality. Thank you very much!

➢ *The Researchers*

➢ *Instruction: Answer the following questions below.*

➢ *General Information*

• Name (Optional): _____

• Home Address: _____

B. *Internet Connectivity and Available Devices of the Students*

➢ *Do you have Internet Connectivity?*
Yes (If yes, please answer the question below):

• *Where do you Frequently use the Internet?*

✓ ___Home
✓ ___Outside residence

• *What Kind of Internet Connectivity are you Using? (You may Check More than One)*

✓ ___WIFI
✓ ___Cable/LAN
✓ ___Mobile Data
✓ ___Other (Please specify):_____

• *How Strong is your Internet Connection?*

✓ ____Strong
✓ ____Moderate
✓ ____Poor

➢ *No (If no, Please Answer the question below):*

• *Why there is No Internet Connectivity at Home? (You may Check More than One)*

✓ ___Costly
✓ ___Lack of internet accessing device
✓ ___Availability of internet access in the area

➢ *What are the Available Devices do you use in Online Learning? (you may check more than one)*

• ____Mobile phone
• ____Laptop
• ____Personal computer
• ____Others: (Specify) _____

➢ *Survey Questionnaire on the Impact of Internet Connectivity Amidst Pandemic in the Academic Performance of Bs Criminolofy Tudents at Usst, Colleges*

➢ *Instructions:*
Read each indicator and evaluate its impact and its extent of manifestation on you as a student in online learning amidst pandemic. Use the following rating scales as your guide in rating.

• *Level of Agreeableness*

✓ 4 = Strongly Agree
✓ 3 = Agree
✓ 2 = Disagree
✓ 1 = Strongly Disagree

The Effects of Lack of Internet Connection in the Academic Performance of Bs Criminology Students at Usst, Colleges

S no.	If there is no internet access at home…	Level of Agreeableness			
		4	3	2	1
1	I cannot do my assignment.				
2	I do not have access in lessons sent through our learning management system and messenger.				
3	I cannot search for relevant ideas when making activities.				
4	I cannot watch video tutorials or pre-recorded discussions.				
5	I cannot perform well in class during discussions compared to those with internet access				
6	I am not updated with the topics in our online group.				
7	It lessens my inquisitive thinking to learn something new.				
8	I cannot relate to the discussions.				
9	I got low performance in our recitation.				
10	I got low scores in our quizzes.				
11	I passed my projects beyond the given deadline.				
12	I got low performance scores during practical activities.				