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RESEARCH AND DEVELOPMENT CENTER

ABOUT THE COVER

“iLUminate” is the Student Research Compendium of Laguna University. It is a compilation of the most valued student research output in programs like accountancy, communication, computing studies, education, engineering, entrepreneurship, technology and tourism. Its cover features a light bulb, a common symbol for the many facets of education, knowledge, and academic pursuits that frequently result in flashes of inspiration. Student research is essential to many disciplines at Laguna University, from technological advancement and engineering to practical applications in psychology. Student research also identifies and addresses current issues and difficulties in a variety of sectors. It offers information, facts, and proof that can be used to create solutions for a better quality of life.

Illumination of the mind is the most frequent metaphor associated with the light bulb, hence the compendium’s name, *iLUminate*. The Research and Development Center created it as a representation for the pursuit of knowledge, the quest for intellectual advancement, and enlightenment through in-depth, high-quality study.

VISION

The center shall create a vibrant research culture by enhancing and assisting the research process for the stakeholders of the institution and contributing to the economic growth and social advancement of the community and benefit of humanity as a whole.

MISSION

The R&DC shall provide research, training, and technical services that will enhance the institution’s capability to harness its full potentials for equitable and sustainable development.

OBJECTIVES

1. To enhance the ability of the academic community in generating and applying new knowledge, focusing on social development, through Research and Development (R&D);
2. To establish an R&D Program which is relevant and applicable to science, languages and communication domain, social sciences, mathematics, accountancy, computer science and information technology, teaching education, business education, mechanical engineering, automotive technology, and health allied education;
3. To serve as a research arm of the Provincial Government by making research available for monitoring and evaluation and propose policy action and recommendation to the Provincial Governor.
4. To produce quality papers for publication that can be used in the local as well as in the international setting.

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**VITAAP: A DECISION TREE-BASED MOBILE PATIENT
MONITORING SYSTEM**

By: Mark Anthony L. Fernandez
Maricar L. Ebrada

ABSTRACT

A decision Tree-Based Mobile Patient Monitoring System that utilized IoT technology and a decision tree algorithm. The use of wearable devices and mobile applications has led to the development of a reliable and efficient patient monitoring system. Classification algorithms will play an essential role in the efficiency of wearable devices. The algorithm helped the decision-making process of sending emergency signals to the mobile application when an unwanted activity in the patient's vital signs occurs. Since the patient's vital sign flow is unpredictable, the classification algorithms improved the accuracy of emergency signals. The study utilized a descriptive research method to gather data from various written articles, related literature, and studies. The primary data were analyzed to examine the research data, while secondary data were collected through a survey questionnaire to determine the perceptions and awareness of the respondents. The study's findings added to the existing knowledge about the application of IoT technology and decision tree algorithms in the healthcare field. The results offered valuable insights into the feasibility and efficiency of these systems in enhancing patient care and minimizing healthcare expenses .

PORTABLE HEAT AND FIRE DETECTION DEVICE

By: Jhon Darll D. Espiritu
Ernesto L. Rivera Jr.
Meca F. Ibarrientos
Jezelle E. Endrinal

ABSTRACT

The Portable Heat and Fire Detection Device is a device utilized by residents of San Benito Victoria, Laguna. The objectives of the researchers were to create a portable version of the device, implement notification capabilities through SMS and third-party applications, and evaluate its performance using ISO 9126. The study defines the scope and limitations of the device, which is a cost-effective product that residents can purchase and

utilize effectively. The device's primary functions include fire detection, temperature sensing using a DHT-22 or temperature sensor, and sending SMS messages to the Bureau of Fire Protection. Monitoring of device data is facilitated through a third-party application employed by the researchers. The application allows users to change the contact number for the Bureau of Fire Protection and manage the SIM card physically. Additionally, the device incorporates GPS functionality to determine its location using longitude and latitude coordinates. It displays real-time temperature readings, operates even during power outages with the help of a UPS, and emits audible alarms to alert users. The device is designed to continuously notify the user and the Bureau of Fire Protection if the temperature exceeds a consistent threshold of 60 °C at the occurrence site. When the device detects a significant heat level in a specific area, it sends an SMS to the Bureau of Fire Protection to report the situation, along with the pinned location.

SALINBAYIN: AN ANDROID APPLICATION FOR HANDWRITTEN BAYBAYIN RECOGNITION AND TRANSLATOR

By: Rustom T. Escasura
Rexzia Joyce T. Hermosa
Cherry Austin S. Mendoza
Cris Dale J. Valenzuela

ABSTRACT

This study focuses on the development of a Handwritten Baybayin Text Recognition Application using OCR and OpenCV to address the challenge of recognizing and translating Baybayin characters, which is on its way to becoming the officially recognized national writing system in the Philippines. The general problem of this study is: a large number of Filipinos are unfamiliar with the Baybayin characters, so it might be difficult to distinguish writing in the Baybayin script. It may be difficult to understand what is written using that character, particularly if not acquainted with the character. The specific problem of this study is: how to read the accuracy and efficiency of recognizing and translating handwritten and translating Baybayin characters; how will the application identify and translate Baybayin text characters from the scanned image; and what is the evaluation of the respondents in the developed Handwritten Baybayin Text Recognition Application using OCR and OpenCV in terms of: 3.1 functionality, 3.2 reliability, 3.3 usability, and 3.4

efficiency. The research design is based on the Waterfall Model, with the survey results indicating that respondents are interested in Baybayin characters and willing to use the developed application. The proponents recommend implementing the application to promote Baybayin and support House Bill 1022. The researchers suggest expanding the training dataset, gathering more handwritten samples, and improving the application's user interface. Future researchers may consider modifying the application for use on iOS devices. This research contributes to efforts to raise awareness of and broaden understanding of the value and beauty of Baybayin as the Philippines' national writing system.

FERA: FIRE EMERGENCY RESPONDERS APPLICATION USING GPS

By: John Louiegi L. Miranda
John Herbert L. Lanao
Keizzie L. Mercado
Arnold L. Celis

ABSTRACT

The Fire Emergency Responder Application (FERA App) aims to design and evaluate a mobile application that addresses the challenge of reducing response time for local fire respondent units during fire emergencies in selected barangays in Los Baños, Laguna. The Agile Methodology was adopted for the development of the FERA App. The research employed a descriptive research method, utilizing survey forms to gather data. The FERA App was evaluated based on ISO 25010 criteria, including compatibility, functionality, maintainability, performance efficiency, reliability, security, and usability. The survey results indicate the significance of the application to society, with a weighted mean of 4.27 and a verbal interpretation of "Strongly Agree." The FERA App enables users to quickly request assistance during fire emergencies. It allows users to ping their current location, enabling fire responders to pinpoint the exact location and reduce response time. The application incorporates features such as login and register methods, a map displaying the nearest fire department, and a dedicated ping button. Future researchers are recommended to enhance the application by implementing two-way communication to notify the Bureau of Fire Protection (BFP) and authorized personnel in the barangay, thereby warning nearby communities where fire emergencies occur. This proactive approach aims to minimize fire

casualties.

ANTI– THEFT ALARM SYSTEM

By:Janna Mae M. San Esteban
Robert Angelo S. Dollete
Ardee C. Sandoval
Lalaine D. Alagon

ABSTRACT

The Internet of Things or IoT will change the world in the future as it gathers all data using IoT devices. It will improve the daily lives of human beings as everything will be connected using different machines in their life. Using their phones, cars, home, and everyday devices will click the city as the world will be bright. The internet of things will lead the world and is essential for providing the additional security protections needed in the world today (Williams, 2022). Nowadays, security has recently become a top issue in the world. The primary concern in our world is the increasing rate of thefts, robberies, etc., at different significant places, including homes, offices, museums, and other business locations. Experiencing theft in our business will affect not only financially but as well as emotionally and physically. Companies implement a security system where security cameras watch everyone inside and outside the establishment 24 hours a day. Say that your business has this kind of security. It still needs human interaction to see what the cameras capture. Theft is a common crime when it comes to business. Some people still commit crimes even if business establishments have security cameras and do not hesitate to do that work in broad daylight. According to the Statista Research Department (2022), theft is the number one attempted theft or unauthorized access to the product storage. This way, they can take immediate action to prevent the theft or contact law enforcement for assistance. The purpose of this study is to create a cost-effective Anti-Theft Alarm System that can help vape shop owners to even secure their product with the help of other current means of security. The researchers conducted a survey questionnaire, interview, and internet research to determine the challenges that the store owners are facing with regards to their business' security.

E-LEARNING MOBILE APP FOR PLANT BREEDIG AND GRAFTING

By: Kenn Justine S. De Leon
Aaron– Chris P. Esquivel
Princess Joy V. Ferrer
Urika C. Graceja

ABSTRACT

The E-Learning Mobile App for Plant Breeding and Grafting is an innovative mobile application that empowers farmers and students by enhancing their knowledge and skills in plant breeding, grafting, and pest management. The app features interactive modules and quizzes to actively engage users and assess their understanding. It covers essential concepts like cross-pollination, hybridization, and selection criteria through multimedia-rich content, including instructional videos. The app also provides step-by-step guidance on grafting techniques such as whip and tongue, cleft, and side-veneer grafting. Additionally, it includes modules on identifying pests and diseases, understanding their lifecycle, and implementing effective control measures. By equipping users with comprehensive knowledge, the app promotes sustainable agricultural practices and reduces crop losses caused by pests and diseases. The researchers gathered data from field experts and various sources, including a survey conducted in Magdalena, Laguna, to support and enhance their investigation. The researchers employed the Agile methodology for software development. By adopting this methodology, they were able to incorporate changes and improvements to the application throughout the development process, thereby ensuring that it meets the needs and preferences of the users.

SOLAR COIN– OPERATED CHARGING MACHINE

By: John Paulo U. Viemas
Ana Laouders P. Jalos
Catherine P. Ren
Kaymark C. Ravelas

ABSTRACT

This study aimed to develop an innovation in the field of information technology. It is entitled “Solar Coin-Operated Charging Machine”, the researchers build this charging machine for student who wants to charge their

Mobile phones, laptops, and, other electronic devices in school. This will be the solution for the “No Charging Policy”. The beneficiary of the machine is student, teachers, non-teaching, and, also visitors who want to use this machine when they want to charge their cellphone, laptop, or mini gadget with a small amount of money. The charging machine used solar panel in the power supply to less the use of electricity. It also used Lithium and Motor Vehicle Battery as an alternative supply of power. When the battery is low, it will charge by the solar panel to continue the use of the charging machine.

MOBILE-BASED SOIL MONITORING AND WATERING SYSTEM

By: Mariel G. Magan
Shan Michael J. Abad
Angelica S. Cano
Ernest B. Del Valle

ABSTRACT

Mobile-Based Soil Monitoring and Watering System is a device that can lessen Human intervention in terms of monitoring the soil and watering the plants. It was developed to help the device user, especially the farmers, to make their work easier and make their process more advanced, efficient, and cost-effective. Mobile based help the users of the device especially the farmers to have advanced technology in this kind of system. Based on the findings and results, the researchers would like to recommend to future researchers to power up the mobile-based soil monitoring and watering system with a solar panel, they can also implement the system to an IOS device and upgrade ultrasonic in scalable measurement.

SMART GLASS WASTE SEGREGATOR

By: Mary Rose L. Delos Reyes
May Alexis A. Paganduan
Rona F. Ignacio

ABSTRACT

This research investigates the various formation or processes on how people in Brgy. Bubukal Sta. Cruz, Laguna segregate their waste specially glass waste materials. Since the situation was very alarming the researchers developed a Glass Waste Segregator that will carry the Glass Waste Materials

to its respective trash cans. The Glass waste segregation is incorporated with Pixy2 Camera that will detect the glass materials in the conveyor, Ultrasonic Sensor and piezo buzzer that will detect if the trashcan is already full and a Servo motor arm that will separate the glass into its proper trash cans. Other features such as determining if the glass is broken is not included. There are also certain types of colored glasses which is not acceptable by the waste segregator.

WEB-BASED DOCTORS DIGITAL PRESCRIPTION SYSTEM IN PILA, LAGUNA

By: Rovie Mae U. Dasmarias
Bethy Mae U. Esperanza
Precy Ann R. Juacalla
Dahryll M. Tira

ABSTRACT

A Web-Based Doctors Digital Prescription System is a digital platform designed to enable healthcare providers such as doctors, to create and send digital prescriptions to the patient. The system is accessed through a web-based interface, allowing doctors to create and manage prescriptions with internet access. The system would also include an SMS notification feature, which would send a text message to the patient mobile phone when their appointment have been approved and to remind patients take their medicine. The researchers collected data from the client using interview, which will also serve as a guide for the system’s development. The Modified Waterfall Model was used to execute and obtain the development process of their system, giving them an idea and insights for its development. Researchers suggest to prioritize enhancing the system's security measures to improve its overall functionality and includes additional features such as video call for online consultation and online payment.

4TRAK: VEHICLE TRACKING MOBILE APPLICATION

By: Ephraim Daniel P. Villegas
Robert Kaypee H. Rosales
Jayson Pareno
Jaymar Cura

ABSTRACT

This study aims to develop a detachable Vehicle Tracking Mobile Application that uses Short Message Service (SMS) and Global Positioning System (GPS) to provide the specific location of a fourwheel vehicle attached with the device. The device's vibration sensor will activate the tracking system when it detects movement and turn off when the vibration stops for a specified time. The Mobile Application will send the vehicle's location to the user via SMS, and the message will contain a latitude and longitude that will point to the vehicle's exact location. The study aims to evaluate the device and application's performance using ISO 25010, which includes functional suitability, performance efficiency, portability, usability, and other factors. The research's objective is to provide peace of mind, protection, and security to the user in monitoring, locating, and tracking their vehicle. The study differs from other tracking devices as it includes a vibration sensor, which can help identify when the vehicle is being tampered with.

EPILEPTIC SEIZURE MONITORING DEVEICE FOR PATIENT CONDITION

By: Emmanuel R. Magtibay
Mae Celit L. Macabasag
Maureen Joy Judilla
Mikee F. Galanto

ABSTRACT

An Epileptic Seizure Monitoring Device for patient condition is a device that allows doctors to monitor the heart rate and oxygen saturation, of patients with epileptic seizures. The monitoring device would also include an SMS notification feature, which would send a text message to the Guardian from mobile phone to update the status of the patient and include a website that will record all the status and history of the patient from the hospital. The researchers gathered data through sources on the internet, and library visits. They also conducted interviews and surveys to collect the information needed

for this study. The study used the Agile Model with the following process of development: Plan, Design, Develop, Test, Release, and the last is Feedback All of this needed to develop the monitoring device to meet the requirements needed by the clients. To enhance the epileptic seizure monitoring device for the patient condition the researcher recommend the future researchers should prioritize of a sensor and micro controller with the aim of enhancing for use a wearable, and include additional features such as long-lasting batteries and study the sensors used to identify convulsive seizures.

SOIL NPK MONITORING SYSTEM WITH DATA ANALYTICS

By: Laizah A. .
Bhrix G. Villanueva

ABSTRACT

This study presents the development of a real-time soil monitoring system that utilizes modern technology to automate and optimize agricultural practices. The system includes an pH sensor to accurately measure the acidity of the soil and NPK sensor to accurately measure nitrogen, phosphorus, and potassium levels in the soil, aiding in soil fertility assessment. Through quick incident identification and resolution, farmers can adopt proactive strategies to manage recurring issues. The system also optimizes irrigation schedules, resulting in higher crop yields, water and energy savings, and increased profitability. The study covers hardware and software components, including Internet of Things (I.O.T.s), ESP32, and a user-friendly website interface. The system enables end-users to promptly address imbalances in the recommended NPK ratio and pH level, streamlining agricultural practices and enhancing productivity.

I-SAFE- INDIVIDUAL SAFETY ASSISTANCE FOR EMERGENCIES DEVICE

By: Mac Jerald B. Urcia
John Paul O. De Pacion
Stephen Bryan S. Mabait
Aeron Suinan De Borja

ABSTRACT

A personal security guide designed to enhance user safety by sharing location information and enabling tracking and emergency alerts. The study

outlines the development of the device, which incorporates Arduino Nano, GPS module, LCD, SIM800L, and ESP32 CAM technologies to locate and guide users. The researchers employed a descriptive research method, gathering information from various sources such as websites, electronic books, libraries, surveys, and interviews with 101 respondents and 2 IT experts. The study follows a modified waterfall methodology, ensuring internal consistency and effectiveness in planning, production, and evaluation of the i-SAFE Device. The researchers adopted and used Developmental theory and used the Input Process and Output (IPO) model on conceptualizing the process of system development from data gathering and development. This study used different statistical tools to evaluate the collected information's results, such as Slovin's Formula, Likert Scale, and Weighted Mean. The system was evaluated by 32 respondents in terms of Technology Acceptance Model (TAM) in terms of Perceive Usefulness, Perceive Ease of Use, Actual Use and Behavioral Intention. After the evaluation, the researchers used a weighted means to analyze the data to find out the performance of the system.

MONITORING TOP BOX FINGERPRINT LOCK SYSTEM WITH TRACKING DEVICE

By: John Ronald A. Malijah
Paulo Williams L. Camba
Rox Clifford Guinito
John Rey Guzaon

ABSTRACT

The rising prevalence of motorcycle theft has underscored the need for enhanced security measures. This study presents a novel solution: a Motorcycle Top Box Fingerprint Locking System with Tracking Device. The system aims to provide motorcycle owners with a secure and reliable method to protect their belongings while riding. The proposed system incorporates advanced security features, including a fingerprint sensor, an electronic keypad for access control, and a tracking device for locating the top box in case of theft. The project utilizes IoT technology, with an Arduino Uno and Nano as the main microcontroller boards and a GPS module and GSM module for tracking and sending alerts. The system offers dual authentication options, allowing users to access the top box using their fingerprints or a passcode. Additionally, the system can track the top box's location and send

notifications to the owner's emergency contacts if unauthorized access is detected. The evaluation of the system considers various ISO9126-1 criteria, including functional suitability, performance efficiency, usability, reliability, security, durability, and portability. The proposed Motorcycle Top Box Fingerprint Locking System with Tracking Device provides an innovative and effective solution to enhance motorcycle security, safeguarding the belongings of riders and deterring theft.

SOIL MOISTURE MONITORING SYSTEM

By: Jesus Moises Edgar L. Delos Reyes
Jenifer Mae A. Dimaana
Brayant E. Herradura
Lara Jane A. Regio

ABSTRACT

Soil moisture monitoring systems play a crucial role in precision agriculture, environmental conservation, and efficient water resource management. This abstract provides an overview of soil moisture monitoring systems, their importance, and the technologies involved. Effective soil moisture monitoring is essential for optimizing irrigation practices, preventing water wastage, and enhancing crop productivity. Traditional manual methods for assessing soil moisture are labor-intensive and time consuming. Hence, the development of automated soil moisture monitoring systems has gained significant attention. Wireless technologies such as Wi-Fi, Bluetooth, enable seamless communication between the soil moisture sensors and the control unit, eliminating the need for extensive wiring. This allows for real time monitoring and remote access to the soil moisture data, empowering farmers and land managers to make informed decisions regarding irrigation scheduling and water conservation. These techniques provide valuable insights into soil moisture patterns, enabling the prediction of water stress conditions, identification of irrigation inefficiencies, and optimization of irrigation strategies.

QR- BASED DOCUMENT TRACKING OF FINANCIAL ASSISTANCE AND NOTIFICATION FOR CALAUAN 4PS

By: Joebert A. Francisco
Paul Christian P. Rafol
Noreen Mae D. Rivera
Cindee Reem E. Villas

ABSTRACT

Document Tracking is to collect the information about people and residency, beneficiary and financial assistance. the Municipal Social Welfare and Development Office (MSWDO) used Microsoft Excel in order to store the records. Applying the document tracking and notification to record the resident, beneficiary, and SMS in order to define the financial assistance. Therefore, this study proposed with the support of MSWDO to provide a document tracking and notification system. The financial assistance in Calauan Laguna, which consists of (residents and beneficiaries) of recorded assistance using a web-based system, which is the chart containing residency, beneficiaries, and assistance for data visualization. The researchers adopted and used Developmental theory and used the Input Process and Output (IPO) model on conceptualizing the process of system development from data gathering and development. This study used different statistical tools to evaluate the collected information's results, such as Slovin's Formula, Likert Scale, and Weighted Mean. The system was evaluated by 32 respondents in terms of ISO/IEC 25010:2011: functional suitability, performance efficiency, reliability, maintainability and security. After the evaluation, the researchers used a weighted mean to analyse the data to find out the performance of the system. The future researchers may consider the different methods and techniques with the same approach with Financial Assistance System and API's that can improve the document tracing than the other studies.

SMART METAL WASTE SEGREGATOR

By: Michael Gilbret B. Del Rosario
Rica R. Bartolome
Mishael G. Urriza
Jeremie S. Pia

ABSTRACT

The study focuses on the development and evaluation of a Smart Metal Waste Segregator, a device designed to streamline the segregation and recycling process of metal waste. The objective is to enhance waste management practices and improve the efficiency of recycling operations. The device incorporates advanced technologies, including inductive sensors for metal detection and an intelligent control unit for real-time decision-making. It utilizes a conveyor system to transport waste items and a swiping mechanism to separate metal waste from non-metal waste. Additionally, an ultrasonic sensor is employed to detect when the trash container is full, triggering an alarm system for timely emptying. The study concludes with recommendations for future researchers to explore areas such as enhancing the swiping mechanism, finding more accurate inductive sensors, and further improving the device's functionality and efficiency.

LAGUNA UNIVERSITY CANTEEN PAYMENT APPLICATION USING QR CODE

By: Jhon K Jeric P. Olguera
John Henry R. Percano
Reymark O. Bucad
Edgin L. Abary

ABSTRACT

The study proposes the development of a mobile application for the Laguna University canteen that uses QR code technology for payment transactions. The goal is to improve efficiency, convenience, and security by replacing the traditional cash-based payment system. The application will allow users to pay by scanning the QR code displayed on the counter with their smartphones. Integration with the university database and student information system will ensure seamless transactions. Through their accounts the customer will simply load into the admin and their accounts will have a balance using e-wallet or gcash upon loading to use the cashier payment

application. The application will be developed for Android and iOS platforms with appropriate security measures. The study will evaluate the effectiveness of the application through tests and surveys among students, faculty, and staff. The expected result is an efficient and secure payment method, which improves the overall canteen experience. The findings can potentially benefit other educational institutions and canteens, contributing to digital transformation in various sectors.

SMART FISHERY WATER QUALITY MONITORING SYSTEM

By: Carlo J. Tagle
Rose Joy T. Agravante
Christian Dave M. Lacsam
Oliver A. Manarpaac

ABSTRACT

This study presents a smart fishery water quality monitoring system that utilizes Arduino Nano and ESP32 microcontrollers, Firebase Cloud platform, and Kodular Android Application. The system aims to provide real-time water quality monitoring and analysis to improve fish health and yield in aquaculture farms. The system measures key parameters such as temperature, pH level, and turbidity, and transmits the data to Firebase for storage and analysis. The mobile application allows farmers to access the data remotely and receive push notifications in case of abnormal readings. A developmental research design is used to study the effectiveness of the monitoring system over time. The results demonstrate the effectiveness of the proposed system in providing timely and accurate water quality data, which can help improve fish survival rates and reduce economic losses in aquaculture operations. The researchers recommend to customize and add more sensors to the system depending on the environment. Also, to explore different Arduino microcontrollers that will work with the sensors.

IOT- BASED VITAL SIGN MONITORING SYSTEM

By: Christian King B. Dorado
Shaira Isabel G. Gevero
King Moises A. Nono
Leila V. Dela Cruz

ABSTRACT

With the emergence of contagious diseases such as COVID-19, many hospitals have gone through overwhelming number of patients. It burdened medical staff with many workloads, such vital sign monitoring, and with constant contact with patients, it puts them also at risk. Therefore, the researchers came up with a system that uses Internet of Things to provide remote monitoring. The IoT-Based Vital Sign Monitoring System is a project development that aimed to deliver functional support to the medical industry in accumulating vital signs measurement from the patients for record, this helped them lessen the interaction to those possible virus carrier patients and prevented themselves from becoming infected. The project utilized an interconnection of a device and a mobile app. The device contains sensors (DS18B20, a sensor for body temperature and MAX30100, a sensor for oxygen saturation and pulse rate) and the readings can be displayed to the different interfaces (patients, doctors and admin) of the mobile application. The researchers had undergone data collection through the library and the internet to supply the information needed for the study. The researchers conducted their inperson surveys to their client at Holy Family Hospital at Santa Cruz, Laguna. They have utilized 153 respondents including the IT experts, doctors, nurses and the patients.

SMART PAPER WASTE SEGREGATOR

By: Levee Rose A. Velasco
Marcial Lance S. Obias
Marjorie M. Toralba

ABSTRACT

This paper presents the design and development of a Smart Waste Segregator, a sophisticated machine aimed at facilitating the efficient separation of paper waste from other types of garbage such as plastic, metal, and glass. The system incorporates a conveyor mechanism with a servo arm

to accurately transfer paper waste to the appropriate trash can. Additionally, it employs a piezo buzzer and an LED light to alert users when the trash can reach its capacity. The primary objectives of this device are to mitigate the volume of paper waste deposited in landfills, promote the recycling of usable paper materials, minimize contact with potentially infectious waste, and establish effective waste management practices within the community. The research team employed various methodologies, including online and library searches, consultations with subject matter experts, and data collection through surveys conducted in Brgy. Bubukal Sta. Cruz, Laguna. The Modified Waterfall methodology was adopted to address issues encountered during the different phases of development, incorporating a feedback system for prompt problem resolution and improvement.

**THE NATIONAL SHRINE OF ST. ANTHONY DE PADUA PARISH CHURCH
APPOINTMENT MANAGEMENT**

By: Neil Aldrin T. Llobera
Jeanne U. Esguerra
Mark Xander S. Cabalo
Kyle A. Vinerao

ABSTRACT

The National Shrine of St. Anthony De Padua Parish Church Appointment Management System is a system that helps the church of Pila, Laguna, make appointments for their clients and accumulate donations and ledgers every day. This system uses SMS and email notifications to approve the client's request that they book an appointment with them. The system consists of a dashboard, in which you can see the legend, total events, and a calendar with the appointments of their clients. The appointment book is where the staff puts all the client's information and their book in the church. Events: This is where the staff puts information about the incoming events of the church. The events will be put in the calendar on the dashboard so that the staff and secretary may see them. Account settings consist of adding users and adding members; for users, you may add a new user for the system, and for members, it just adds members with information about them. Reports consist of two things: a ledger and a donation. In this, you will see all the accumulated donations of the church attendees .

SMART POULTRY SYSTEM

By: Edilberto B. Pangilinan Jr.
Paul Adrian M. Fullas
Viyah A. Barrameda
Jhyan D. Laagin

ABSTRACT

Poultry farming is a rapidly growing sector, and maintaining optimal environmental conditions is essential for the well-being and productivity of chickens. This capstone project focuses on the development of a Smart Poultry System to monitor and control the temperature of poultry farms using IoT technologies. The main objective of the study is to develop the Smart Poultry System, with specific goals including remote temperature monitoring and control, SMS notifications for users, and evaluating the system's requirements based on ISO 25010:2011 standards. The Smart Poultry System utilizes wireless sensors and a mobile strategy, enabling remote monitoring and control of temperature in the poultry farm. By implementing this system, farmers can ensure the ideal conditions for their chickens, leading to improved performance and higher quality output.

**REAL– TIME MONITORING MOBILE APPLICATION FOR JEEPNEY
TRANSPORTATION**

By: Mags Elly A. Balasbas
Jhonloyd C. Bazar
Aries Gel M. Gonzales
Aldrain R. Samonte

ABSTRACT

This study presents the development of a real-time monitoring mobile application specifically designed for Jeepney transportation. The aim of the application is to enhance the efficiency and reliability of Jeepney transportation systems by providing real-time information to both passengers and operators. The application utilizes advanced technology to track and display the location of Jeepneys on a map, allowing passengers to accurately estimate arrival times and plan their journeys accordingly. Additionally, the application incorporates features such as fare calculation, route information, and feedback mechanisms, which contribute to an improved overall passenger experience. The development of this application involved rigorous

testing and iterative design to ensure its effectiveness and userfriendliness. The results demonstrate that the real-time monitoring mobile application for Jeepney transportation significantly improves the accessibility and convenience of this mode of transportation. The findings of this study contribute to the ongoing efforts in enhancing public transportation systems, particularly in urban areas where Jeepneys play a vital role in the transportation network.

IOT– BASED CIRCUIT BREAKER MONITORING AND CONTROL

By: Jane Aldrienne R. Catinding
Rea Madel C. Quinones
Ma. Zhaila L. Esguerra
Jay Ann G. Adanza

ABSTRACT

The "Iot Based Circuit Breaker Monitoring and Control" is a promising technology that has the potential to help individuals to monitor and control and manage their electricity consumption efficiently while also ensuring their safety. This study provides valuable insights into the development and evaluation of the technology. The researchers utilized various data collection methods such as internet searches, face-to-face surveys, and consultations with experts to develop and evaluate the system. They used a modified methodology framework that follows the Waterfall methodology for software development principles, which helped them control the project development and documentation plan effectively.

OBSTACLE DETECTION– BASED WALKING ASSISTANT TECHNOLOGY FOR VISUALLY IMPAIRED

By: Jericho M. Delas
Chin-chin V. Guizalan
Ross Angelo J, Lagrosa
Fhei L. Pacoma

ABSTRACT

As of 2018, over two million Filipinos have visual impairment and undiagnosed eye problems. These individuals face challenges in navigating unfamiliar environments, affecting their economic situation and self-esteem. Researchers developed Walking Assistant

Technology, a system designed to help blind people detect obstacles and navigate their surroundings. The device uses GPS monitoring and internet access to track the user's location. The study involved three blind individuals and their relatives from AREZA Mall in Pagsanjan, Laguna, and received positive feedback from the survey questionnaire. Future research should focus on improving the user interface and introducing new features to enhance system performance.

DETECT M: ANTI– MALWARE FOR ANDROID

By: Kristine Mae M. Francisco
Jeramee O. Gimenez
Roel M. Santiago
Anzen A. Rodrigo

ABSTRACT

Detecta-M is an anti-malware application for Android devices that utilizes machine learning techniques and permission based to improve malware detection and minimize device resource consumption. The Detecta-M application utilizes permissions and intent-filters to identify harmful applications. During the scanning process, it loads a machine learning model and retrieves permissions and intents from the apps installed on the user's device. These features are then transformed into a vector and provided as input to the machine learning model. The researchers used Agile Methodology to develop an anti-malware scanning application for Android phones. The process involved brainstorming, planning, design, development, testing, release, and feedback stages. They used Android Studio and Canva to create the application and tested it for compatibility, functionality, and usability. The data collection procedure involved observation, internet research, and user feedback and ratings.

AUTOMATIC GATE CONTROL SYSTEM

By: Jv S. Radam
Patricia Mhae C. Gonzaga
John Fyke D. Clemente
Nhel Jomar T. Yologo

ABSTRACT

Automatic Gate Control System is a device powered by raspberry pi 4 that is designed and created that will give an easy access in lifting a boom barrier gate, and also has an RFID scanner provided an RFIC tags and cards that will serve as an additional security of the vehicle and also in the facility. The system is also connected to a mobile application where the user can monitor the log in time of their vehicle, the researchers explained how to use the application and the system to the client which is the Laguna Police Provincial Office Camp BGen Paciano Rizal in Barangay Bagumbayan Santa Cruz Laguna. The researchers used the Agile Model that serves as guide and pattern in doing the system's development.

LIQUEFIED PETROLEUM GAS REAL-TIME MONITORING SYSTEM

By: Kenneth Bryan R. Gonzaga
Lee Andrei R. Rodriguez
Jahaziel Jerbis D. Bunyi

ABSTRACT

This abstract presents a brief overview of a real-time monitoring system developed for Liquefied Petroleum Gas (LPG) to enhance safety and efficiency in its usage. LPG is widely utilized as a clean energy source for domestic, commercial, and industrial purposes. However, improper handling and storage of LPG can pose significant risks such as leaks, explosions, and fire hazards. The proposed realtime monitoring system aims to address these concerns by continuously monitoring key parameters related to LPG storage, distribution, and consumption. The system utilizes a network of sensors deployed across the LPG infrastructure to gather data on parameters such as pressure, temperature, leak detection, and gas volume. These sensors are connected to a centralized control unit that processes the data in real-time.

FACE RECOGNITION ATTENDANCE MANAGEMENT SYSTEM USING LPPH

ALGORITHM

By: Ashryve M. Didato
John Antony Del Mundo
Alejandro Russel V. Paz
Ed Mozart T. Villanueva

ABSTRACT

This study aimed to develop a face recognition attendance management system using the LBPH algorithm. A module was created to automatically record attendance based on face recognition and generate a spreadsheet containing attendance records. Face recognition attendance systems can significantly reduce manual effort and provide real-time attendance records. The system was evaluated using ISO/IEC 25010:2011 standards and received high satisfaction with a weighted mean of 4.293 from users and IT experts. The study recommends implementing the system at the main entrance and improving portability for future researchers.

AIRBNB QR CODE-BASED SMART DOOR LOCK SYSTEM

By: Jonaly R. Laserma
Marry Joice B. Llarena
Eunice Jael C. Malaza

ABSTRACT

Airbnb QR Code-based Smart Door Lock System is a technology that allows to unlock the door through the use of generated QR code. It has an online service platform where guests may create, update and recover their accounts. The tenant can also be notified when someone tries to access the door with an invalid QR code, and the system can track guests' arrival times and immediately identify intruders by their faces. Researchers collected data through interviews and survey methods. The Modified Waterfall Model provides an orderly sequence of developmental steps with flexible iterative phases that will facilitate the sufficiency and relevance of documentation and references whereby ensuring the efficiency, functionality, usability, reliability, security, and maintainability of the developed custom system.

A MECHANISM FOR FRUITS AND VEGETABLES EVALUATION USING CONVOLUTIONAL NEURAL NETWORK (CNN) ALGORITHM

By: Pamela S. Juvida
Mary Ann P. Rosal
Crystal Gayle M. Dizon
Charllote Grace S. Sarzuelo

ABSTRACT

The study presents the classification and identification of fruits and vegetables. The recommended method accurately classifies and identifies fruits and vegetables by using a mobile application. The technique contains a training model of different characteristics, such as color, shape, and size of fruits and vegetables. The 2 mechanism contains an image recognition algorithm that uses methods from mobile applications to identify fruits and vegetables from captures with the objective to improve the accuracy of the classification and identification process. The algorithm showed accuracy in detecting fruits and vegetables after being trained on color, shape, and size. Training a CNN model to identify and classify fruits and vegetables, using a white background to train a fruit and vegetable because it allows the model to concentrate on the important features of the object rather than be distracted by the background, which can improve accuracy and consistency across various lighting conditions and backgrounds. CNN model accuracy can be improved by training it on a white background. To make sure that the model can effectively identify and classify fruits and vegetables, make sure that the training data includes a variety of fruits and vegetables from different angles and under different lighting conditions. This study is the development of an application that can be used for health-conscious and educational purposes that can provide information about the fruits and vegetables that are tested. Application is currently limited in identifying and classifying fruits and vegetables, such as apples and cucumbers. The application can provide nutrition details about fruits and vegetables that can help individuals in making decisions about their health. The life span of fruits and vegetables refers to the length of time, or weeks. The application is for devices in android versions only.

SMART HOME SECURITY SYSTEM

By: Yuan O. Laguitan
Louie Boy B. Fadrigalan
Ronnie Gabriel O. Ocubillo
Carlo F. Mendez

ABSTRACT

Smart Home Security System aims to ensure safety and a high quality security for the homeowner and to be able to manipulate and control the visitors through three ESP-32 CAM that has face recognition that determines whether the visitor is an intruder or an authorized personnel in which the feature of the face recognition allows registration of faces of visitors to allow access to enter the property without any alarm or notification, the other feature is the doorbell that allows two-way communication that enables the visitor to converse to the homeowner, lastly the motion sensor is another way of functionality of the system that allows snap pictures of intruder that are detected through movements within the perimeter covered. Through the use of Smart Home Security System, it helps to improvise the security from a normal surveillance camera to a multitasking device that can-do multiple functions at once in order to prevent any unnecessary home invasions. The collected data of the researchers through survey's which follows a will serve as an instrument to further improve the research study that follows the agile methodology which served as the foundation for the researchers' investigation.

ISCHEMIC HEART DISEASE PREDICTION USING RANDOM FOREST ALGORITHM INTEGRATED IN BHCIS

By: Augustin A. Montenegro
Raymond B. Bongat
Homer I. Ordillo
Joselito S. Bando

ABSTRACT

Researchers conducted a study to improve the usefulness of Barangay Health Center Information Systems (BHCIS) by incorporating a feature that predicts the likelihood of patients developing ischemic heart disease. The feature utilized the Random Forest algorithm and

variables based on the Framingham Heart Study, such as age, sex, cholesterol levels, blood pressure, medication usage, and smoking status. The results indicated that the Random Forest Regressor model performed well, with a strong positive correlation (0.84) between risk scores calculated by the Framingham Heart Study and those generated by the prediction feature. The system's overall performance was evaluated using ISO/IEC 25010, and it received an overall weighted mean of 4.61, indicating strong agreement. The IT experts also gave a positive rating, with a weighted mean score of 3.93 indicating an "agree" interpretation. Therefore, the general evaluation of the system indicated that the respondents and the experts were satisfied with the system that was developed. Recommendations for further enhancement included using actual datasets for training, implementing a patient tracking system, incorporating appointment scheduling and feedback features, and providing daily reports on child vaccination.

PLATENET: A CONVOLUTIONAL NEURAL NETWORK APPROACH FOR VEHICLE VIOLATION

By: Christian S. Enriquez
Jessha U. Esguerra
Jogh Ray T. Vela
Jezreel B. Leop

ABSTRACT

This study develops PlateNet a ticketing app using the CNN Algorithm to improve the efficiency and accuracy of the SCTMO's current violation ticketing system. The proposed solution includes real-time data recording, an admin webpage for data management and analysis, unique ID generation, and license plate number detection using CNN Algorithm. Evaluation of the app follows ISO/IEC 25010:2011 standards. Data was gathered through survey questionnaires using a descriptive research approach. The PlateNet app accurately scans and produces vehicle plate numbers, receiving positive evaluations from IT experts and SCTMO Traffic Officers. The evaluation demonstrates that PlateNet is a functional, efficient, compatible, usable, reliable, secure, maintainable, and portable tool for vehicle violation ticketing. Further research can explore the application of CNN algorithms in enhancing

mobile apps. PlateNet contributes to improving road safety and convenience for traffic violators as enforcers can now issue tickets using their mobile devices, providing a significant improvement to the current system.

SMOKE DETECTOR WEB BASED MONITORING SYSTEM

By: Princess Glaiza C. Tanay
Jhasmine C. Zotomayor
Regina Joy D. Villegas
Mariah Korrine M. Paloamate
Abiegail C. Nido

ABSTRACT

This study aims to develop and design a Smoke Detector Web Based Monitoring System that utilizes the concept of IOT (Internet of Things), the network of physical objects integrated with sensors, software, and other technologies to communicate and share data with other devices and systems over the Internet. The researchers conducted a survey and interview with the residents of Barangay Maytalang 1, Lumban, Laguna, to know the current issues regarding fire and harmful smoke occurrence. The Modified Waterfall Model was utilized in the process of analysis and design. The Gantt Chart was also employed by the researchers as a planning tool to aid readers in understanding every task necessary for the project. Gantt Chart is a graphical representation of activities against time that aids project managers in keeping track of development. The developed device can detect harmful smoke and promptly notify the owner using an SMS notification when the smoke level crosses the threshold. In addition, the developed device has a web-based system where they can observe and monitor the level of smoke the sensor detected. It is a real time monitoring system in which the user can extract to an Excel file all the data the sensor reads.

IPLUG WISE

By: Lester Flint F. Alforte
Abegail D. Hernandez
Patrecia Toledo
Jairo F. Labiano

ABSTRACT

iPlugWise is a technology that allows you to turn a power outlet "on" and "off" using an application on an Android smartphone. The term "smart plug" is the one that is most often used to refer to this kind of device. The RFID functionality of the iPlugWise is another feature of the product. The functionality can be used to turn the device "on," and another feature of the device is its ability to be automatically turned "off" when the device is not being used. The system is aimed at providing users with a straightforward and effective method to manage the electricity they use while also protecting them from any dangers posed by electrical outlets. The researchers collected data with experts in the field and utilizing other sources that were able to assist and supplement their investigation like a survey in Victoria, Laguna. The researchers used Scrum, a methodological framework that follows the Agile methodology software development principles. The researchers utilized this methodology to control the project development and documentation plan.

ROAD DAMAGE REPORT APPLICATION

By: Yna Bianca L. Larona
Pauline T. Trabajo
Pearly A. Chavez
Renuel A. Duran

ABSTRACT

The Department of Public Works and Highways (DPWH) receives road damage reports through hotline numbers, but this method has limitations. To address this, a Road Damage Report Application was developed, allowing users to report road damage by capturing photos. The system was evaluated using the ISO 9126 criteria, and users found it effective in meeting their needs. The researchers recommend future exploration of advanced technologies like machine learning to improve accuracy and efficiency in road damage detection. They also suggest enabling remote

reporting for users outside the app's deployment area.

A MOBILE– BASED EMERGENCY SUPPORT TOOLS SYSTEM

By: Haydee B. Camunias
Rheanalaine C. Lubuguin
Judy Anne A. Medina
Arjay A. Urbina

ABSTRACT

Mobile-based Emergency Support Tool System is a mobile application determined and created to aid rescuers and people in need during and after an incident or any unfortunate event that aims to give immediate assistance to avoid further fatalities. The application will help the officials of Municipal Disaster Risk Reduction Management Office so that they could respond quickly in a much-prepared manner. The researchers collected data from the MDRRMO officials, selected IT experts, and randomly selected residents in Santa Cruz, Laguna using survey questionnaires that served as a reference and guidance for the system's development. The researchers used the Modified Waterfall Model to execute and obtain a system that sustained the projects' development. The researchers recommends that the system to be endorsed to other MDRRMO wide spreading the use of the application and that the future researchers might opt to add a database feature accessible for report management and make it available to iOS platform users.

PORTABLE SECURED SMART LOCKERS

By: Quennie R. Enriquez
Rica Mae B. Escobel
Eden S. Berganio
Mariel A. Guico

ABSTRACT

Portable Secured Smart Locker is a modernized traditional locker that provides storage space for things that are mainly operated by RFID tags/cards. This RFID functionality allows the device to be open by tapping the registered tags/cards, while denying access to unregistered ones. Adding and removing registered tags/cards by tapping the master card first followed by

the tags/cards to be added or removed is also part of the RFID functionality. A data log (date, time, RFID tags/cards) that accessed the device were being saved on an SD card in any chosen document formats. A push button incase that the RFID fails is the last addition to this device. The device is aimed at providing a modernized version of the traditional lockers that resolves the problems of using it as well as providing a way to collect data that can be useful for future analysis. The researchers collected data necessary for this research through expert consultation and internet resources as well as through a survey that was done in Laguna University, Santa Cruz, Laguna.

PALO MANAGEMENT SYSTEM

Kim Cyrile D. Aranza
Cyrus Glenn M. De Leon
John Carlo V. Espinase

ABSTRACT

This study aims to developed and design a PALO Management System that includes a version of web app. The researchers conducted a survey and an interview to Placement, Alumni and Linkages Office Director Mr. Tony Angelo C. Alvaran to know the current issues and problems in terms of OnThe-Job trainee monitoring and utilized the Scrum Model in the process used in the analysis and designed. In addition, the researchers used the Gantt Chart as a planning tool that helps the readers to understand every task required for the project. Gantt is a useful graphical tool which shows activities or tasks performed against time. The developed system assists the management of PALO in monitoring and recording the attendance of the trainee Mia Joy P. Suiza.

KASAKA: AN AGRICULTURAL MAPPING APPLICATION FOR DATA PROFILING OF RICE STATUS USING NAÏVE BAYES ALGORITHM

By: Julie Mae L. Acibar
Alvin C. Adefuin
May G. Bacsafra
Kleiron L. Consignado

ABSTRACT

Kasaka, an agricultural mapping application, utilizes the Naive Bayes algorithm for classifying rice plants' health status, aiding SL Agritech Corporation in optimizing agricultural methods. The application reduces manual data collection and offers real-time update. Researchers collected data through interviews with SL Agritech Corporation and employed an agile approach for development. The Naive Bayes model's accuracy and F1-score were 0.833 and 0.8, respectively, indicating consistent performance. A survey using ISO/IEC 25010:2011 criteria resulted in a 4.80 weighted mean, demonstrating high satisfaction. Future improvements include enhanced Google Maps API integration, offline data entry, and iOS compatibility.

ANTI-KIDNAP ALERT SECURITY SYSTEM

By: Gannie L. Gonzales
John Wilson O. Relova
Wilmar Darleer A. Gonzaga
Jericson A. Layugan

ABSTRACT

An Anti-Kidnap Alert Security System consists of a wearable device and a monitoring system that tracks the device's location and triggers an alarm if it detects any unusual activity or deviation from a predefined safety route or zone. The device has a precise time tracking feature and a Blynk application that displays real-time directions, battery level, and the Guardian and Police Number. The study involved gathering information through searches, expert interviews, and a face-to-face survey of 104 respondents. The researchers used an IPO diagram and ISO 9126 criteria to evaluate the system's functionality, reliability, usability, efficiency, maintainability, and portability. The results showed that the respondents, including IT experts and policemen, were satisfied with the system's effectiveness. The researchers

suggest future enhancements to the system, such as adding water-resistant functionality, reducing the location update interval, and making the device more portable and discreet.

COIN– OPERATED SNACK VENDING MACHINES (VENDUINO)

By: Princess Anne A. Arban
Jonelle M. Cardino
Ricky Jim E. Isla
Adrian I. Lucillo

ABSTRACT

Coin-operated Snack Vending Machine (Venduino) is an Arduino-based vending machine that dispenses biscuit snacks. The Venduino has a capacity of up to 35 items and features a security function that utilizes a limit switch to detect any unauthorized access, such as opening the front door or coin box without permission. The security function can be activated or deactivated through SMS, and the owner can also register their phone number by sending an SMS message. Additionally, the Venduino used laser and sensors to detect when items were out of stock and to monitor the coin box's fullness. Capturing snapshots was also a feature of this device, when the sensor sensed something within a specific range, the camera will immediately take a snapshots. Overall, Venduino aimed at providing users with a secure and automated solution for snack vending, offering advanced features such as stock monitoring and snapshot capture. The researchers collected data by conducting web searches and in libraries, consulting with experts in the field, and utilizing other sources that were able to assist and supplement their investigation. A face-to-face and online survey was conducted in order to gather the accurate information and data necessary for the study. There were three hundred seventy (370) respondents in total: three hundred sixty six (366) college students from Laguna University, one (1) owner, and three (3) experts. The researchers used Modified Waterfall, a model that provides an orderly sequence of development steps with some flexible iterative stages to facilitate the adequacy of documentation and design reviews to ensure the quality, reliability, and maintainability of the developed custom software. The researcher utilized this model to control the project development and documentation plan.

The criteria for evaluating the system as specified in ISO 9126 include functionality, reliability, usability, efficiency, maintainability, and portability. The respondents evaluated the device that the researchers had developed. The iv approach proved effective in that it was able to fulfill its duties and satisfy the intended target population. According to the overall assessment result of the respondents, owner and expert, the device's respondents, owner, and expert highly accepted the criteria and therefore achieved a weighted mean of 4.77. Therefore, both evaluations indicate that the respondents and the experts were satisfied with the system that was developed. To further enhance the Coin-operated Snack Vending Machine (Venduino), the researchers recommended to future researchers to expand the selection of snacks in the vending machine (Venduino) in order to increase its capacity. Furthermore, the researchers recommended installing a better camera to increase the security, and capture better snapshots. Lastly is to enhance the functionality of the device by allowing it to update product prices without the need for reprogramming, to increase convenience for the owner .

SMART PLASTIC WASTE SEGREGATOR

By: Reymart L. Pandalag
Marlo M. Mercada
Myra M. Millorada
Melvin V. Raby

ABSTRACT

The Smart Plastic Waste Segregator is a device that helps people segregate their plastic waste from other waste such as paper, metal, and glass. The smart waste segregator reduces operational time and costs and only needs one worker. The device is composed of the following parts; a conveyor that carries garbage into its appropriate trash can, a Pixy2 camera that detects the plastic waste, a servo arm that will swipe the plastic directly to its trash can, and a sensor, piezo buzzer, and LED light that will alarm the person in charge when the trash can is full. The device aimed to reduce the time-cost of segregating the garbage. The Smart Plastic Waste Segregator was implemented at Barangay Bubukal, Santa Cruz, Laguna. The researchers used a methodological framework that follows Modified Waterfall methodology software development principles. To enhance the Smart Plastic Waste

Segregator, the researchers recommended to future researchers that they add another feature that segregates the biodegradable (wet) and non biodegradable (dry) garbage, add secondary power to continuously operate even without electricity, and upgrade the machine with bigger and more responsive features for the device.

SMART SCARECROW

By: Christian Troyd M. De Asis
Ron Emil C. Caballes
Rollene G. Herradura
Neil Paulo L. Rivera

ABSTRACT

The Smart Scarecrow capstone project introduces an innovative approach to combat bird pests in agricultural fields. By leveraging advanced technology and artificial intelligence, the project aims to develop a cost-effective and efficient solution to protect crops. The Smart Scarecrow system employs intelligent scarecrow units equipped with sensors to detect bird activity. Through machine learning algorithms, the system analyzes the collected data to identify potential threats and activates non-harmful deterrent mechanisms to scare away birds. This project offers a sustainable and autonomous alternative to traditional bird control methods while providing real time monitoring and valuable insights for effective crop management.

CLASSROOM ENERGY MANAGEMENT DEVICE

By: Joshua H. Noriel
John Brix R. De Leon
Christian E. Delgado
Mary Joyce E. Odo

ABSTRACT

The "Classroom Energy Management Device" is a technology that has the potential to help individuals manage their electricity consumption efficiently while also ensuring their safety. This study provided valuable insights into the development and evaluation of the technology. The researchers utilized various data collection methods such as internet

searches, in person surveys, and consultations with experts to develop and to evaluate the system. They used a modified methodology framework that follows the Waterfall methodology for software development principles, which helped them control the project development and documentation plan effectively.

GREENHOUSE ROOF VENT AUTOMATION FOR CLIMATE CHANGE

By: Kyle C. Bonita
Angelo T. Fraynes
Jan Maria T. Jalos
Christine A. Jamito

ABSTRACT

Greenhouse Roof Vent Automation for climate change systems intends to trap heat and produce warmer temperatures for plants requiring controlled environments. Arduino with a temperature sensor, rain sensor, and a light sensor gives them the ability to either open or close the roof ventilation automatically. Vents will open when the temperature rises and remain closed when the temperature drops. With automatic vents, growers will be able to change the temperature, efficiently, inside the greenhouse and take precautions before the temperature or humidity reaches destructive levels when there's a sudden change in the weather that affects the temperature greatly; and monitor the situation accordingly. Researchers used a descriptive design that can be gathered through the survey. Agile Model is the software technology used in this study. Researchers used the Agile methodology for the collection of principles that value adaptability and flexibility, it is a type of project management process, mainly for software development (Asmo, 2019).

WEB BASED SL AGRITECH FARMERS SCHEDULING SYSTEM

By: Meleiden J. Orilla
Kerylly M. Cambe
Russel Christian L. Cruz
Mark Adrian P. Petalio

ABSTRACT

The proposed system utilized a scheduling platform to identify and verify the attendance of farm workers and schedule farm activities. The system included features such as a QR code that can serve as a tool to gather their attendance, and a scheduling platform for assigning tasks and tracking progress. The results of the study showed that the monitoring attendance and farm activities scheduling system significantly improved attendance monitoring, increased productivity and efficiency, and provided a reliable and secure means of tracking farm activities.

IOT- BASED FLOOD DETECTION SYSTEM WITH SMS NOTIFICATION

By: Jeny-Bhee E. Pagulayan
Kathrina C. Malaborbor
Myveline M. Regalo
Freny D. Anggay

ABSTRACT

Floods are one of the most destructive natural disasters, causing significant damage to communities and claiming numerous lives. To mitigate the risks associated with floods, it is essential to develop an effective flood control system. This paper proposes a flood detection system that not only detects water levels but also measures the rate at which the water level rises and alerts residents accordingly. The researchers utilized various data collection methods such as internet searches, face-to face surveys, and consultations with experts to develop and evaluate the system. The research adopts the Agile methodology and utilizes a mobile application to monitor the water level. Agile methodology was used to ensure that the Flood Detection System was developed in a manner that met stakeholder needs and was responsive to changing requirements.

SOLAR COIN- OPERATED WATER VENDING MACHINE

By: Aedrian Paul P. Borjal
Jan Carlo O. Maranan
Eugine M. Garcia
Bryan C. Bardaje

ABSTRACT

A Solar Coin-Operated Water Vending Machine is a system that dispenses hot and cold water. It has a feature where the owner will receive an SMS notification when the system doesn't have enough water and needs to be refilled with water, and it also has a feature that can transfer the SMS notification receiver from the registered SIM card number to the new SIM card number. The project aims to design and develop a Solar coin-operated water vending machine that helps the Senior High School (SHS) students of Laguna get water at an affordable price inside the campus. The researchers collected data from senior high school (SHS) students using survey and interview methods, which will also serve as a guide for the development of the system. The Agile Methodology was employed to execute and obtain the development process of the systems, giving them ideas and insights for the system's development. The researchers eventually developed the system using a variety of techniques from agile methodology. The researchers recommend upgrading the button for the pause and continue functions to more advanced features, such as using two different push buttons for the functionality of pause and continue; using steel to build the system case as a replacement for plywood to make it durable over time and keep it operating for many years; and plying higher-wattage solar panels for fast charging and to maximize the full potential of the system to operate longer than before.

LAGUNA UNIVERSITY EMPLOYEE CREDIT COOPERATIVE MANAGEMENT SYSTEM

By: Tricia Loraine M. Espinosa
Jenny T. Dimaano
Veronica C. Hibana
Jar R C. Umali
Russel D. Layba

ABSTRACT

Laguna University Employees Credit Cooperative was established on January 2020. The goal of the Cooperative is to improve the quality of life of its members. It was conceived to augment materials subsistence of the members, and sustain income generation through savings & loans. This study focused in the creation of LUECCO-MS to systematize loan transaction. By setting up an online loan management system, users will find it more convenient to apply for a loan, and they will be notified of the various stages of the loan application, making the entire loan process transparent. It also makes the entire credit system scalable. The objectives of this study is to develop paperless loan application management system and to develop Laguna University Credit Cooperative Management System. The researcher acquired data by conducting web searches and library searches, consulting with experts, and employing other sources that helped and supplemented their research. The data and Information needed for this study were collected using Face to Face survey. The respondents are 30 consisting of 27 LUECCO members and three IT experts. The researchers used the criteria based on ISO 25010:2011 in terms of functionality, usability, reliability, efficiency, maintainability, and security.

The study used the modified waterfall model in developing Laguna University Employee Credit Cooperative with the following phases: requirement analysis, design, implementation, testing, and maintenance to meet the requirements needed by the clients. For the purpose and advancement of this study, the researchers recommend future researchers to upgrade the system into more responsive features for mobile phone and other devices. LUECCO members and three IT experts have evaluated the Laguna University Employee Credit Cooperative Management System. Results indicated that the application was reliable, performance efficient, usable, can maintain, secure, and suitable to function. Based on the software evaluation,

the system got a weighted mean of 4.53 in terms of functionality, 4.42 in reliability; 4.57 for usability; 4.28 for efficiency; 4.66 for maintainability; and 4.02 for security. The Laguna University Employee Credit Cooperative Management System got the total average weighted mean of the valuation was 4.41 with a verbal interpretation of Agree. To enhance the loan application the study, recommend to consider investing in loan monitoring software that can automate tasks such as data collection, analysis, and reporting, A reporting system should be established to ensure that loan monitoring results are communicated effectively to senior management and other stakeholders. Reports should be clear, concise, and provide an accurate assessment of the loan's performance. Add more responsive features to the system in relation to smartphones and other gadgets.

COLLEGE OF EDUCATION

UTILIZATION OF ORAI APPLICATION TO IMPROVE THE SPEAKING FLUENCY OF SECOND YEAR BSED MAJOR IN ENGLISH STUDENTS

By: Ellaine M. Banares
Juniel Eylroi G. Carrillo
Archie V. Garin
Mae Eliecel E. Laguardor
Irish S. Tabagf
John David L. Yu

ABSTRACT

Different approaches in obtaining English fluency can be navigated, and with the use of technology the society possesses today, unprecedented outcomes are endless. This action research assessed the utilization of Orai application to improve the speaking fluency of second year BSEd Major in English students. The data were obtained from the students' scores after using the application for seven (7) days which rates their satisfaction and experience with the application. The purpose of the Quasi-experimental research design was to evaluate the effect of the intervention, Orai application, on the speaking fluency of BSEd English students. To conclude, the Orai application is an effective learning tool that improves students speaking fluency. The results showed that the utilization of the Orai application to improve the speaking fluency of second year BSEd Major in

English students was effective and helped them enhance their speaking fluency in terms of conciseness, confidence, pacing, and fillers.

TEACHTOK: SUPPLEMENTARY TOOL IN IMPROVING LANGUAGE PROFICIENCY

By: Rizalie R. Esteban
Marithonie L. Estrada
Patricia Mae R. Lirio
Christian Uriel L. Mendez
Jeanne Ravenlei Z. Oca
Joana Marie Villadiego
Regine M. Villanueva

ABSTRACT

Language proficiency is an indicator of someone's ability to speak fluently in several languages. Students who can communicate in a foreign language have a broader range of critical thinking and communication skills than those who cannot speak a foreign language fluently, and they add more value inside and outside of the classroom. With the increasing popularity of social media, educators have been adopting social media platforms, such as TikTok, for learning purposes. This research assessed the impact of TikTok as a supplementary tool in improving the language proficiency. Sixty (60) Grade 11 HUMSS students are the respondents of this study. The data were obtained from the students' scores in the pre-test and post-test questions. To analyze the gathered data, the researchers used statistical tools such as; Pearson Product-Moment Correlation Coefficient and Authentic Mean. Based on the result, the use of TikTok as a supplementary tool in improving the language proficiency is effective.

THE MENTAL HEALTH AND ACADEMIC PERFORMANCE DURING COVID-19 BLENDED LEARNING OF THE COLLEGE OF EDUCATION STUDENTS AT LAGUNA UNIVERSITY

By: Rowena M. Alonte
Diana L. Biluan
Queen– Ann K. Decierdo
Regine C. Mendoza
Nina Loraine Kyle L. Monton
Nicole R. Pajavera

ABSTRACT

The pandemic created a paradigm shift in education. From the traditional face-to-face, Laguna University applied CHED Memorandum Order No.04 Series of 2021 which orders online classes and modular modality to be implemented. The study focused on understanding the level of Mental health, the academic performance and the significant effect on the College of Education students during the Blended learning modality implementation. Slovin's formula was used to distribute the questionnaire to all respondents. To determine the challenges faced by the respondents with the modality, weighted mean and standard deviation was used. In assessing the impact of the modality on students' mental health and academic performance, Analysis of Variance (ANOVA) was used. The null hypothesis was accepted inferring that the modality has no significant impact on the mental health of the respondents but data showed that it has a significant impact on the academic performance of the respondents.

iHEAR: A LEARNING PACKET FOR LISTENING SKILLS IMPROVEMENT OF GRADE 7 STUDENTS OF GOV. F. T. SAN LUIS INTEGRATED SENIOR HIGH SCHOOL

By: Vincent M. Dela Cruz
Rosemie Yantie R. Eleazar
Mary Grace M. Garcia
Ana M. Lozano
Sofia Nicole Macawile
Thalia Joy G. Opina

ABSTRACT

This study aimed to determine the effectivity of iHEAR (Integrating Hearing Exercises to Aid Reinforcements) as a learning tool for listening skills

improvement of grade 7 students of Gov. Felicisimo T. San Luis Integrated Senior High school. It seeks to identify the level of listening skills of grade 7 students during pre-test without using the intervention of iHEAR; to determine the level of listening skills of grade 7 students during post-test with using the intervention of iHEAR; and to present the significant difference between pre-test and post-test using iHEAR of grade 7 students. The researchers used an experimental research design to determine the effectivity of iHEAR on the listening skills of the students. This study used Purposive sampling technique in choosing the respondents. The questionnaires were distributed to thirty selected grade 7 students of Gov. Felicisimo T. San Luis Integrated Senior High School. After the evaluation, all data were collected, tallied, and statistically treated using Paired t-test. The results were then tabulated, analyzed, and interpreted to where the findings and conclusion were drawn.

YOUTUBE AS A SUPPLEMENTARY TOOL IN TEACHING VOICE OF THE VERBS

By: Marilene M. Baltazar
Mark Bryan Anthony U. De Lima
Redmond Mar E. Flores
Love Jean Malapo
Jhondelle E. Santayana
Angelica Marie C. Villangca

ABSTRACT

With each passing year, technology has evolved into a backup tool in the field of education, with video technology dominating. YouTube, a type of video technology, which is most widely used around the world, also views as a potential educational platform. This research assessed the impact of YouTube as a supplementary tool in teaching voice of the verbs. Fifty (50) GFTSISHS grade 7 learners are the respondents of this study. The data were obtained from the learners' scores after answering pre-test and post-test question on voices of the verb. The purpose of the quantitative research design was to evaluate the testing of the hypothesis regarding the independent and dependent variables' relationship. The data gathered by the researchers were computed electronically using Real Statistic–Data Analysis Tools, and treated statistically using T-Test for Paired Samples. Based on the result, using YouTube videos as a supplement to other teaching methods for teaching voice of the verb is effective.

READING COMPREHENSION AND THE ACADEMIC PERFORMANCE IN SOLVING MATHEMATICAL WORD PROBLEMS OF THE GRADE 6 STUDENTS ACROSS PILA DISTRICT

By: Hazel Joy G. Bano
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Windy I. Parañaque,
Ellaine Joy T. Perez
Angeline P. Punelas

ABSTRACT

This study focused on "Reading Comprehension and Academic Performance of Grade 6 Students in Solving Mathematical Word Problems across Pila District." The study aimed to determine if there is a significant relationship between reading comprehension and academic performance in solving mathematical word problems among the forty-six (46) Grade 6 students across Pila District. The Descriptive Correlational method was employed to determine the relationship between Reading Comprehension in Solving Word Mathematical Problems and the Academic Performance of the students. A correlation study was conducted to determine whether a significant or non-significant relationship exists between the variables under investigation. The study utilized the Percentage and Pearson correlation coefficient (r) to analyze data from two independent samples in order to achieve the following objectives: (1) determine the level of reading comprehension in solving word Mathematical problems, (2) assess the level of student academic performance in solving Mathematical word problems, and (3) to determine the significant relationship between reading comprehension and the academic performance of the students in solving Mathematical word problems.

Based on the gathered data, the analysis revealed that the highest frequency of reading comprehension levels in solving word mathematical problems was in the score range of 13-16, with a corresponding percentage of 54%, which was categorized as "Very Satisfactory." The next highest frequency was observed in the score range of 9-12, with a percentage of 35%, which was classified as "Satisfactory." Conversely, the lowest frequency of respondents was found in the score range of 1-4, with a percentage of 0%, indicating a need for improvement in reading comprehension skills. Moreover, the data analysis showed that the highest frequency of student academic performance in solving mathematical word problems was in the

score range of 13-16, with a percentage of 68% classified as "Very Satisfactory." This was followed by the score range of 9-12, with a percentage of 26% classified as "Satisfactory." However, the lowest frequency was observed in the score range of 1-4, with a percentage of 0% indicating a need for improvement.

Overall, the computed p-values between reading comprehension and the academic performance of students in solving word mathematical problems were found to be lower than the significance level ($\alpha = 0.05$). This indicates the rejection of the null hypothesis, signifying a significant relationship between reading comprehension and academic performance in solving word mathematical problems, as perceived by the respondents. The r-value suggests a strong positive relationship, indicating that higher reading comprehension is associated with a greater likelihood of achieving high scores in solving word mathematical problems.

STRESS LEVELS OF 4TH YEAR WORKING STUDENTS: BASIS FOR A STRESS MANAGEMENT PROGRAM

By: Cheska B. Abadier
K.C.A Arroyo
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Quinie Anne L. Jocson
Nikki R. Lubuguin
Nikki A. Plasabas
Dennizse Cziella Lhei B. Rivera

ABSTRACT

The main purpose of this study was to determine the sources of stress and stress levels of 4th-year working students in the College of Education and College of Business Administration and Accountancy of Laguna University, which served as the basis for an intervention program. Purposive sampling was used to obtain the number of working students from two departments, COEd and CBAA. To gather the outcomes, a quantitative-descriptive method was employed using a survey questionnaire and statistical tools such as frequency and percentage, weighted mean, standard deviation, and paired t-test. The Perceived Stress Scale (PSS), adopted from Cohen (1983), was used to assess the extent to which participants perceived their lives as stressful. Additionally, the researchers created a supplemental video for working students who were unable to

attend the Zoom meeting. The researchers hypothesized that there would be a significant difference between the stress levels of students before and after implementing the two-word check-in as a stress management program, which was adopted and modified by Nick Woolf (n.d). This program aimed to help students connect and describe how they are feeling.

The researchers concluded that the null hypothesis was rejected because the p-value of .000 was lower than the alpha level of .05. Rejecting the null hypothesis indicates that there is a significant difference in the level of stress among working students before and after the implementation of the stress management program, using a 5% level of significance. Therefore, it can be inferred that the stress management intervention program was effective in reducing the students' stress levels. The researchers would recommend the following: 1) Laguna University must fund more programs related to mental awareness and psychosocial support for students. 2) Intensify the Counseling Services programs, offering individual or group counseling to better guide students in coping with their personal needs. 3) Strengthen communication with parents to provide improved information and guidance on how to support their children during challenging times. 4) Enhance the implementation of teachers' consultations with students. 5) Future researchers should expand the coverage of this study to include different year levels and/or colleges.

CONTENT ANALYSIS OF SEXIST LANGUAGE ON THE WRITTEN DISCOURSE OF PRE-SERVICE TEACHERS: INPUT TO GAD TRAINING PROGRAM

By: Joey Marie S. Salvador
Dalisay Deane C. Bulawan
Zaramay Carillo
Adriel Catana
Maristelle U. Cruz
Shara Lyne C. Jacosalem

ABSTRACT

As language continues to evolve, it is important to acknowledge and embrace all genders. In light of this, the use of non-sexist language should become a norm, particularly in the written discourse of teachers who interact with diverse students on a daily basis. The goal of this study was to conduct a content analysis to identify instances of sexism in the written discourse of pre-service English teachers at Laguna University College of

Education during the academic year 2022-2023. The study focused on specific forms of sexist language, including generic pronouns, the use of the term "man," occupational roles, misogyny, and stereotypical representation in the essays written by the pre-service English teachers. The corpus for analysis consisted of thirteen descriptive essays. The findings of the study revealed that the most common form of sexist language found in the written discourse of the pre-service teachers was the gendered generic usage of masculine pronouns.

SELF-PACED INTERACTIVE ONLINE COURSE IN DISASTER RISK REDUCTION MANAGEMENT FOR GRADE 12 STUDENTS

By: Luella g. Lirio
Leila Joyce R. Perez
Gwyneth A. Pingal
Jhaniza Poblete
Ma. Leorina A. Vecida

ABSTRACT

This research aimed to improve the understanding of the factors that could permit and sustain disaster risk reduction management (DRRM) procedures. These disasters have a significant impact on students, the crucial way to educate them about how disasters occur, the variables that influence them, and what they should do in such situations. The goal of this study was to determine how prepared the students were. Specifically, the typhoon and earthquake and how a self-paced interactive course in DRRM might have an impact on those factors. A total of 120 respondents from Grade 12 from two municipalities in Laguna namely Bay and Sta. Cruz were selected to use the self-paced interactive online course. The respondents were asked to take a pre-test. After that, the students were enrolled in the online course, and lastly, they took the post-test administered by the researchers. The respondents' pre-test awareness and readiness levels have shown that they understand DRRM that was in between the approaching proficiency and developing. The respondents were able to access the website based on the intervention designed. In terms of the post-test, it was determined that the level of awareness and level of readiness on DRRM was Approaching Proficiency. The degrees of learning before and after the intervention were significantly related to one another. This implied that there was a substantial difference between the respondents' learning levels prior to the intervention.

This study demonstrated that it was beneficial and fulfilled its aim for the intended audience.

PARENT-CHILD RELATIONSHIP AND ACADEMIC PERFORMANCE IN MATHEMATICS SUBJECT OF GRADE I PUPILS IN NEW NORMAL EDUCATION: A CORRELATION STUDY

By: Joana Marie S. Bibon
Lynnel E. De Lima
DeeAnn C. Malaza
Myrine M. Mendoza
Mari Paula O. Ocampo

ABSTRACT

This study is focused on the "Parent-Child Relationship and Academic Performance in Mathematics Subject of Grade I Pupils in New Normal Education" This study aimed to determine the correlation between the parent-child relationship and the Development/Progress of the learner's academic performance obtained on the paper survey questionnaire of their parent's and its learner's significant progress in the academic performance in Mathematics in School in each quarter. Descriptive- Correlational method was used in this study to determine the parent-child relationship and academic performance in mathematics subject of grade I pupils in new normal education. This study is about examining the significance progress of the parent-child relationship and academic performance in mathematics subject of grade I pupils in new normal education at Pagsawitan Elementary school. For this study, made-up paper survey questionnaires were used to gather data and information. The mean, standard deviation and Pearson-R were used to look at data from two independent samples and figure out: 1 the average level of the development in learning of pupils in terms of parent-child interaction on the basis of Family and Home Environment, Parental Involvement in Learning and Child's Behavior towards learning 2 the mean level of the learner's significant progress in the academic performance in Mathematics in School during First Quarter to Fourth Quarter; and 3 to determine the significant correlation between the parent-child relationship and the Development/Progress of the learner's academic performance.

With the data gathered, the mean level of the development in learning of pupils in terms of parent - child interaction based on Family and

Home Environment has a composite mean of 4.25 and a Likert Scale interval of “strongly agree”. The level of agreement on parent - child interaction based on Family and Home Environment is “very high”. The composite mean for parental involvement in Learning is 4.13 and its Likert Scale interval is “often”. The composite mean for Child’s Behavior towards Learning is 2.61 and its Likert Scale interval is “sometimes.” The percentage of learner’s academic performance in Mathematics in the first quarter is 10.11% of the learners attained such level of academic performance. It increases to about 19%, 27% and to almost 36% in the second, third and fourth quarter, respectively.

On the timeline given, the following were observed, the first quarter serves as initial observation of the study as it became the basis for comparison of data, the second quarter and third quarter the lessons are quite difficult, so it can be observed that the child’s behavior becomes somewhat challenging. While in the fourth quarter, it gets easier for the child because the fourth quarter functions as a summative of the first to third quarter and regards on child’s progress, the very satisfactory decreases. In the second quarter that is an indication that the children are having a bit of difficulty, so they are having challenging behavior.

Overall, the computed correlation between the parent-child relationship and the development/progress of the learner’s academic performance revealing that, there was a significant negative and weak linear relationship between the performance in the Second Quarter and Child’s Behavior towards Learning, $r = -0.22$, $p - \text{value} = 0.03736$, and between the performance in the Third Quarter and Child’s Behavior towards Learning, $r = -0.22$, $p - \text{value} = 0.04099$. This means that the improvement in a child’s academic achievement in either the Second or Third Quarter would follow a decrease in the frequency of expression of negative conduct toward learning. The increase in students who achieved outstanding and largely satisfactory academic performance in the third quarter is evidence of this. On the other hand, it may also imply that a drop in performance in the second and third quarter would follow an increase in the frequency of a child’s negative conduct towards learning. The other connections are not noteworthy.

There is correlation between a learner’s level of academic performance and their level of agreement with family and home environment, as well as with how often they demonstrate parental involvement in their children’s education and how often they engage in

negative child behavior towards to learning.

PREPAREDNESS OF PRE– SERVICE AND ADAPTATION SKILLS: IMPLICATION TO PERFORMANCE IN THE NEW NORMAL

By: Acer John D. Babaan
Diane F. Dorado
Arnie G. Olivar
Vanessa D. Payas
Christine Marie B. Querona
Alyssa Mae O. Suerte

ABSTRACT

This paper discussed a coherent way to determine and identify the impact of preparedness and adaptability skills of the thirty-six (36) Bachelor of Elementary Education pre-service teachers and their performance towards the new normal education. The study focused on the implications of Technology, Oral and Written communication skills among pre-service teachers and its relationship to their Adaptability skills in the real world of teaching such as their social skills, teaching techniques, and their proficiency in handling school-related work, and how it directly affects their performances during their actual demonstration teaching. To obtain necessary data, the researchers used simple random sampling and an online type of questionnaire that was distributed via Google Forms. To identify the result of the gathered data, the researchers applied frequency and percentage distribution to determine the level of preparedness and adaptation skills; the weighted average mean was applied in determining if the level of preparedness implied the adaptation skills of the pre-service teachers; regression analysis was used to see if there was a connection between the two variables. It was revealed that there was a significant implication between the level of preparedness of the pre-service teachers and their adaptation skills. Therefore, the research hypothesis was rejected and there was a significant relevance between the level of preparedness and adaptation skills based on the gathered data.

UTILIZATION OF OREGANO-CALAMANSI-LAVENDER CANDLE IN MOSQUITO IN BAY, PILA, AND SANTA CRUZ HOUSEHOLDS

By: Wivina Yolette M. L. Cruz
Mark Anthony H. Benitez
Marjholyn U. Dimaano
Ericka V. Sinuhin

ABSTRACT

Dengue fever (DENV) is a systemic viral infection transmitted by *Aedes* mosquitoes. It is potentially fatal, lacking licensed vaccines or specific therapeutics, and efforts to control its spread have been ineffective. The global distribution and public health impact of dengue are currently unknown (Bhatt et al., 2013). Severe dengue was first identified in the Philippines and Thailand in the 1950s, and it remains endemic in Southeast Asia, causing hospitalizations and deaths among children and adults (WHO, 2017). According to the World Health Organization, DENV is a rapidly spreading mosquito-borne viral disease primarily transmitted by *Aedes aegypti* mosquitoes (WHO, 2017). This study focuses on identifying mosquito-repellent plants in the Philippines, such as oregano, calamansi, and lavender, with the aim of developing effective and environmentally friendly mosquito repellents for households. The research utilizes the essential oils of these plants and eco-friendly materials, such as soy wax and lead-free cotton wicks, to create a sustainable oregano-calamansi-lavender candle. By reducing the negative environmental impact and minimizing the use of chemicals, this study aims to provide a safer and more pleasant alternative to traditional mosquito repellents. The results of this investigation have the potential to benefit individuals affected by mosquito-related issues, alleviate symptoms, and contribute to the fight against mosquito-borne diseases, particularly dengue fever.

Additionally, the study can serve as a valuable resource for data collection and the development of materials to combat deadly diseases transmitted by mosquitoes. The study aims to find that there is a significant difference in effectiveness between the three different concentrations of oregano, calamansi, and lavender essential oils. Additionally, when the oregano-calamansi-lavender candles are used in selected households, they will be effective in terms of repellency and protection time. Furthermore, the scent of the candles will be acceptable to the participants in the selected households.

YOUTUBE AS SUPPLEMENTARY TOOL IN TEACHING VOICE OF THE VERBS

By: Marilene M. Baltazar
Mark Bryan Anthony U. De Lima
Redmond Mar E. Flores
Love Jean M. Malapo
Jhondelle E. Santayana
Angelica Marie C. Vilangca

ABSTRACT

With each passing year, technology has evolved into a backup tool in the field of education, with video technology dominating. YouTube, a type of video technology, which is most widely used around the world, also views as a potential educational platform. This research assessed the impact of YouTube as a supplementary tool in teaching voice of the verbs. Fifty (50) GFTSISHS grade 7 learners are the respondents of this study. The data were obtained from the learners' scores after answering pre-test and post-test question on voices of the verb. The purpose of the quantitative research design was to evaluate the testing of the hypothesis regarding the independent and dependent variables' relationship. The data gathered by the researchers were computed electronically using Real Statistic–Data Analysis Tools, and treated statistically using T-Test for Paired Samples. Based on the result, using YouTube videos as a supplement to other teaching methods for teaching voice of the verb is effective.

LEARNING STYLE AND THE ACADEMIC PERFORMANCE OF COLLEGE OF EDUCATION STUDENTS IN SEAMLESS BLENDED DISTANCE LEARNING PROGRAM

By: Cindy R. Garibay
Ronaly B. Ibit
Geraldine C. Imperial
Jheamely T. Jocson
Ralene T. Razon

ABSTRACT

The main purpose of the study was to determine the Learning Styles and the Academic Performance of College of Education students in Seamless Blended Distance Learning Program. A descriptive quantitative research was design to measure the Learning Styles and the Academic Performance of College of Education students in Seamless Blended Distance Learning Program

wherein among 212 of students under the Bachelor of Elementary Education (BEED) students the researchers had Calculated a total of 137 students through the Slovin's formula with a margin of error of 5% or 0.05. A survey questionnaire through google forms was used to gather the needed data to find out the Learning Styles and the Academic Performance of College of Education students' in Seamless Blended Distance Learning Program. The researchers found out that there is a significant relationship to the Learning styles and academic performance of College of Education students' in Seamless Blended Distance Learning Program in terms of visual learning style. The researcher's recommendation was focused on the learning styles in Terms of auditory, reading and kinesthetic based on the result there is no significant Relationship to the academic performance in terms of the three learning styles.

PEER TUTORING ON ENHANCEMENT OF MATHEMATICS PERFORMANCE OF GRADE 6 STUDENTS AT SANTISIMA CRUZ ELEMENTARY SCHOOL

By: Ivy O. Breganza
Jeralden Tugonon Davines
Maynard B. Estrada
Jamaica D. Noble
Monnet M. Sigarra
Jenieva U. Trosada

ABSTRACT

Peer tutoring is a learning method that entails student partnerships that pair good students with lower achievers or pupils with comparable achievement for systematic reading and math study times and impart their self-confidence. The main purpose of this study is to help the students enhance their academic performance in the aforementioned subject. The data gathering will be done by selecting grade 6 students, both female and male, with separate results from the conducted pretest and posttest questionnaires. Other students who do not fall into the category are not included in the collection of information. The only purpose of this study is to achieve its goal, and it won't look into anything else. After using dependent T test at the scores of the students after pretest and posttest, we got a computed value (T Value) of -5.6803. With a critical value of -2.0195, the null hypothesis is rejected and therefore conclude that the peer tutoring can bring a significant difference to the combined result of

critical thinking and problem-solving tests. The finding suggests that school heads and classroom teachers may use "peer tutoring" as a learning method for helping the learners improve their performance in mathematics. The school and the classroom teachers may use peer tutoring as a learning method that entails student partnerships that pair good students with lower achievers or pupils with comparable achievement for systematic reading and math study times.

INTEGRATION OF STATIC FORM ELEMENTS IN GOOGLE FORMS TO IMPROVE THE LANGUAGE PROFICIENCY LEVEL OF LAGUNA UNIVERSITY SENIOR HIGH SCHOOL ICT STUDENTS

By: Marilyn E. Macuha
Kensley M. Muñoz
Miya Lyn B. Paloyo
Kaye Christine P. Pangil
Rei-mar D. Ramirez
Rydelle A. Vallejo

ABSTRACT

English has been used by almost everyone as their secondary, if not first, language in speaking, writing, reading, listening, and communicating. Yet, there has been a social stigma where students taking up Non-Academic programs and Skills-based courses are not inclined to understand and study English as a language any more. This research aims to evaluate the idea of improving their language proficiency through an intervention tool that will benefit them and their future profession. All these with the use of Google Forms as intervention tool that aims to improve and develop their knowledge and understanding of the English language specifically in terms of Form (Mechanics; such as punctuation, capitalization, and spelling) and Use (Parts of Speech). The data were obtained from twenty (20) enrolled grade 12 ICTstudents from Laguna University Senior High School, A.Y 2022-23.

**UTILIZATION OF PLANT– BASED BIODEGRADABLE CUP AS
AN ALTERNATIVE TO DISPOSABLE CUP**

By: Christine Kaye R. Bacsifra
Jardy Clarck A. De Guia
Elijah L. De Leon
Milbret J. Lanuang
Frank Moises D. Reyes

According to Lebleu of 2019, around the world 500 billion plastic disposable cups are reportedly consumed each year and then almost instantly discarded. It takes approximately 20 year for a paper cup to decompose while a plastic cup takes around 450 years and 500 years for a styro-cup. Due to the stated problem, the researchers come up with the research entitled “Utilization of Plant - Based Biodegradable Cup as Alternative to Disposable Cup” that aimed to lessen the production of disposable cups that cause several problems not only in environment but also in human health. The researchers used wood scobs, bamboo sawdust, coconut husk, agar powder, corn starch, and flour together with baking method to create the plant-based biodegradable cups. They gathered twenty students from Bachelor of Elementary Education and twenty students from Bachelor of Science in Mechanical Engineering of Laguna University to test the performance of plant-based biodegradable cups in terms of appearance, aftertaste, and durability compared to commercial disposable paper cups. The majority of the p-values were lower than the level of significance; hence the null hypothesis is rejected. There is a significant difference between plant-based biodegradable cups and commonly used paper cups in terms of appearance, durability and aftertaste. Durability showed no significant difference between the plant-based biodegradable cups and the commonly used paper cups according to the results of the t-test for two paired test. The researchers of this study concluded that the level of acceptability of the plant-based biodegradable cups in terms of appearance, durability and aftertaste was a potential to be an alternative to commonly used paper cups but need enhancement in appearance and aftertaste. The level of acceptability of the commonly used paper cups in terms of appearance, durability and aftertaste are still efficient as drinking cups. In addition, there is a significant effect difference between plant-based biodegradable cups and commercial disposable cups in terms of appearance, durability and aftertaste and there is no significant in terms of

durability as perceived by the respondents. The recommendation of the research are the following: improve the size and shape of the plant-based biodegradable cups by having bigger equipment in baking and more effective molders; find an effective substitute to agar which will improve the taste effect and appearance concerning texture of the plant-based biodegradable cups; further study that will prove the safeness of the plant-based biodegradable cups for consuming substances being held by it.

**TEACHER– PARENT CHALLENGES, TEACHING STRATEGIES, AND BEST
PRACTICES IN TEACHING ENGLISH TO SPED STUDENTS IN
NEW NORMAL EDUCATION**

By: Estioco P. Eduardo III
Carla May M. Frades
Hezel M. Quilapio
Rone Janelle D. Tayson

ABSTRACT

The main purpose of this study was to determine the Teacher – Parent Challenges, Teaching Strategies, and Best Practice in teaching English to SPED students in New Normal Education. A mixed research method was design in this study to determine the challenges, the teaching strategies, and the best practices of Special education teachers and the parents of SPED students in teaching English in the New normal education, where the data gathering took place personally by administering sets of questionnaires to (12) SPED teachers and (20) parents of SPED students. The data collected was analyzed and presented using multiple regression and the weighted mean. The researchers found out that SPED teacher and parents of SPED students often experienced challenges before and during the pandemic/new normal education. However, the SPED Teachers and Parents of SPED students has their own way to cope up with the challenges they experienced in teaching English to SPED students in the new normal education. The researcher’s recommendations were the SPED Teachers and Parents of SPED students must provide extra effort and attention in teaching and guiding the student with special needs in order to overcome the challenges that might occur.

**TIKTOK: SUPPLEMENTARY TOOL IN IMPROVING LANGUAGE
PROFICIENCY A.Y. 2022-2023**

By: Rizalie R. Esteban
Marithonie L. Estrada
Patricia Mae R. Lirio
Christian Uriel Mendez
Jeanne Ravenlei Z. Oca
Joana Marie Villadiego
Regine R. Villanueva

ABSTRACT

Language proficiency is an indicator of someone's ability to speak fluently in several languages. Students who can communicate in a foreign language have a broader range of critical thinking and communication skills than those who cannot speak a foreign language fluently, and they add more value inside and outside of the classroom. On the other hand, TikTok is an application where people tend to socialize using short videos that they share on the app. A lot of people are using the application, and as of August 2020, TikTok had 500 million downloads and 15 million reviews on the Google Play Store.

Using TikTok, many teachers have begun creating condensed versions of their classroom lessons. Whether they are teaching science, English, math, or even physical education, this gives students the ability to refer back to lessons they may have missed in class or if they require a refresher. Since the site initially only allowed up to 60 seconds for each video, teachers were compelled to focus on communicating their important points. A 3-minute video function has now been added by TikTok for creators. Consequently, it will be possible for teachers to include even more content in their digital microlessons (Jaeger, 2021).

The results in post-test prove that TikTok has significant effect in improving language proficiency of the Grade 11 HUMSS students in St. Therese College of Arts and Science Inc. It showed that utilizing TikTok in improving language proficiency was effective and helpful.

COLLEGE OF ENGINEERING

AUTOMATED FEEDING BAMBOO SLICER

By: Zhaleenn P. Dixon
Renz Ian A. Oliver
Von Joshua B. Victoria

ABSTRACT

Bamboo is a well-known timber in the Philippines where it is used to construct furnaces, houses, and arts and crafts. The preparation of the bamboo utilized takes a long time and effort to complete. One must first cut the bamboo, and then split it into suitable pieces. This study consists of bamboo-cutting and splitting. The charge manipulator of an intelligent bamboo-splitting machine was improved using a genetic algorithm; hence, it is a series of experiments were conducted to explore crucial performance. The main purpose of this study was to design and fabricate an Automated feeding bamboo slicer with adjustable blade that will help the bamboo workers from their traditional method of slicing the bamboo. Furthermore, the study aims to provide a bamboo slicer that can slice up to 3, 4, 6, 8, or 10 slices to create a bamboo slicing machine that can reduce the workers' effort and production time by making an automated feeding bamboo slicer with hopper, to assure the safety of the workers by installing a proximity switch to the bamboo slicer machine, and to evaluate the bamboo slicer machine in terms of machine's efficiency and safety. Based on the results of this study, the researchers recommended the following for further improvement and enhancement of the machine: Future researchers could devise a larger hopper so that more bamboo can be fed into it; future researchers may improve the design of the project by extending measurement to the body in accordance with a larger bamboo; future researchers may develop an additional cutting device with a specific number of blades that can slice bamboo; future researchers may design different feeder stoppers to feed bamboos precisely; and future researchers may improve the machine by using a 3-phase electric motor to change the speed of the motor.

BAMBOO DEBARKING AND INTERNAL DUST REMOVING

MACHINE FOR TIKOY SA TUKIL

By: Kimberly M. Dorado
John Gabriel C. Quidayan
Ralph Airon C. Ocampo
Frishia F. Olazo

ABSTRACT

This study focused on the design and fabrication of a prototype machine to aid in the production of bamboo containers for tikoy sa tukil. The main objectives were to develop a prototype capable of debarking and removing internal dust from tukil, as well as reduce the production time by approximately 50%. The machine's performance was evaluated based on the quality of external debarking and internal dust removal, production rate, and safety.

The research findings indicated that the prototype effectively fulfilled its intended functionalities, achieving an overall production efficiency of 90%. The use of proportioned or undeformed tukil was found to yield the desired output of the machine, and sanding was identified as an efficient debarking method, resulting in a superior finished product. To further enhance the study, future researchers were recommended to explore improvements in the debarking process through the use of custom-made blades or a new sanding mechanism. Additionally, it was suggested to strengthen the machine's frame to minimize vibrations, replace the center roller's coconut husks with a more durable brush, incorporate additional safety features to cover exposed parts, and include a dust container to mitigate the mess generated by the machine.

DEVELOPMENT OF COCONUT LEAFLET TRIMMER

By: Veralyn Mae D. Bondad
Carl Eugene G. Embelino
Joan Angeline C. Villadiego

ABSTRACT

The purpose of this study was to design and develop a coconut leaflet trimmer to minimize the time required in manually shearing of coconut leaflets. To achieve this goal, the study focused on five objectives: 1) the design and development of a coconut leaflet trimmer that removed the midribs of the coconut leaflets, 2) to design a multifunctional horizontal type

rubber roller to guide the leaflet, 3) to apply one pair of disc type wire brush roller to improve quality of midrib, 4) to test and evaluate the machine in terms of the quality of the coconut leaflets trimmed, the speed of the trimming process, and the safety of the machine, and 5) to compare the coconut leaflet trimmer to existing design of the machine in terms of the quality of the coconut leaflets trimmed, the speed of the trimming process, and the safety of the machine. In order to assess the performance of the machine, tests and trials were conducted. The results showed that the average production rate of the machine when operated by one person is 839 broomsticks/hr. and capable of shearing 1.9979 bundles/hr. or approximately 2 bundles with an efficiency of 91.6599%. Based on the results of this study, the researchers recommend the following for further improvement of the coconut leaflet trimmer: the improvement of the design and chain alignment to reduce the number of motor required in running the machine; and finding the best clearance for the distance between the steel brush roller in improving the quality of the midrib.

DEVELOPMENT OF ROTARY SAND SIEVING MACHINE

By: Gewelyn C. Calma
Danica L. Dapiton
Joshua M. Dizon

ABSTRACT

This study aims to construct an effective Rotary Sand Sieving Machine that can help in communities and selected municipalities at Laguna. The Developed Rotary Sand Sieving Machine was designed by the researchers to sieve sand which are dry and wet. The sieved sand can be used in plastering. The pumice can be used as gravel for filling. The machine was composed of an AC motor, hopper, chain drive, rotary drum, and fine sand tray. The AC motor transmits power to the shaft that was connected to the chain drive. The sieving process was covered for safety. The materials get sieved and collected on the right side of the machine and in the fine sand tray. The Rotary Sand Sieving Machine was evaluated by its sieving capacity and analyzed for its performance. This machine has a speed controller to control the specific speed needed. Based on the testing conducted, the machine's capacity for dry sand at 165 RPM is 1.09 m³ /hr, and for wet sand at 240 RPM,

it is 0.97 m³ /hr. The sieving capacity can be improved by improving the type of speed controller being used.

DOUBLE- PURPOSE SLICING MACHINE WITH ADJUSTABLE BLADE

By: Cayle Paola M. Almontero
Julius Brian V. Ambida
Angelo V. Amonelo

ABSTRACT

The purpose of this study was to design and fabricate a Double-Purpose Slicing Machine with Adjustable which produces cassava chips and potato batonnet. This machine consists of two blades, one for chips and the other is for batonnet, this blade was connected to an adjustable mechanism to change the blade's setting. The machine was powered by a three-phase motor, where its rotational direction and the speed setting was changed using a variable frequency drive, forward rotation was for cutting crops into chips while the reverse rotation was for cutting crops into strips. To achieve this goal, the study focused on three objectives: 1) To design and fabricate a blade that can slice a potato and cassava into chips and strips, 2) To design and fabricate an adjustable mechanism for to change the setting from strips to chips or vice versa, and 3) To test and evaluate Double Purpose Slicing Machine with Adjustable Blades in terms of capacity and efficiency. To assess the performance of the machine, test and trials were conducted. The results showed that in 2mm blade clearance the recommended speed setting is 20Hz in order to achieve a good quality cassava chip with an efficiency of 93% and a capacity of 2.54 kg/min, while in potato batonnet the recommended speed setting is 12Hz in order to achieve good quality potato batonnet and an efficiency of 86.33% and a capacity of 2.01 kg/min.

AERONAUTIC MECHANICAL FISH FEEDS SPREADING DRONE FOR AGRICULTURAL FISH CAGE

By: John Roni C. Pantaleon
Christina Mae C. Ravelas
Lawrence T. Trijo
Earlson P. Tuppil

ABSTRACT

Many conventional agricultural practices have become outdated as a result of technological advancements when it comes in monitoring, supervision, management, and control systems. The researcher aimed to design and developed feeds spreading drone that will spread feeds in fish cages. In particular, this study sought to: 1) determine the output of the fish feed spreading drone in terms of the volume capacity of the container and power and rotational speed of motors; 2) to identify what is the standard materials and components need to be considered in constructing a fish feed spreading drone; and 3) evaluate the performance of the drone in terms of cycle time and flight time, maximum and minimum distance, and continuous operation. The study covers developmental and theoretical framework to develop an autonomous aerial vehicle capable of carrying a safe load of 1.25 kg feeds that can spread feeds at a point-blank range starting from the shoreline of the lake. This type of agricultural drone will be used in agricultural fish cages located at Laguna de bay. The fish feed spreading drone was evaluated by its cycle and flight time during continuous operation. Also, the volume capacity of the container and power and rotational speed of motors. Based on testing conducted with different distances from shore to fish cage (250m, 400m, and 500m) the only problem that has been encountered is the range of telemetry, there must be no obstacle blocking its signal while the drone is doing its operation so that the signal from servo container will not disrupt.

**DESIGN AND INNOVATION OF RATTAN CORE SIZER AND
CORE WICKER MACHINE**

By: Arnel B. Hico
Abmel Roppet S. Maderazo
Annie Joy C. Pita
Maui Ricci L. Siquinia

ABSTRACT

This study aims to design an effective Rattan Core Sizer and Core Wicker Machine that can help the local rattan craftsmen in Mabitac, Laguna. The Rattan Core Sizer and Core Wicker Machine was designed by the researchers to lessen the processing time of rattan pole. The machine consists of 12 rubber rollers, 4 inches in diameter, in which it will push the rattan pole to the two interchangeable blades for sizing and wicking. The core sizer blade is made of hardened steel with an inside diameter of 24 mm. The core wicker blade on the other hand, consists of 11 holes each has an inside diameter of 4 mm primarily for wicking the rattan pole. The machine is powered by an 11 Horsepower gasoline engine for a much more power and for its capability to operate in remote areas.

DEVELOPMENT OF SEMI-AUTOMATIC BAMBOO STRAW MAKER

By: Joseph Michael M. Piamonte
Pauline Joy R. Rebong
Jonard B. Salcedo
John Denver V. Cabamalan

ABSTRACT

Today's culture has increased the manufacture of many disposable things for convenience. The top of the list is single-use plastics. Unfortunately, most of these plastics are only ever used once. The daily dumping of a small number of plastic straws can, overtime, cause significant ecological issue. Bamboo straws are reusable and friendly to the environment. Nature provided the raw material, therefore it seemed natural to assume that there would be an alternative to the typical straws currently being used. In contrast to plastic straws, which can only be used once, it has a structure that allows it to be used repeatedly and washed afterwards. Development of Semi-Automatic Bamboo Straw Maker produce an eco-friendly straw as well as to

promote the usage of bamboo straw. To achieve the desired function and output by using and designing machine components such as: electric motors that is effective in driving the shafts, roller for external sanding and electric grinder to cut the bamboo. The prototype has two major components the cutter and the roller for external sanding. The cutter was driven by 2 horsepower and the external polisher was driven by 1750 rpm. The cutting efficiency of machine has an average of 96.15%. The cutting rate has an average of 8 bamboo straw per minute. The external polishing rate has an average of 3 bamboo straw.

UBE PULVERIZER MACHINE WITH COMBINED MIXER AND CRUSHER

By: Jeffrey L. Articono
Erica Jane D. Servanca
Prince Justine A. Urma

ABSTRACT

This study aimed to design and fabricate an ube pulverizer machine with a combined mixer and crusher for small local business owners to minimize the necessary time processing ube root vegetable and save space. To achieve this goal, the study focused on four objectives: 1) To use a screen mesh that can pulverized up to 0.2 mm, 2) To compare the Ube Pulverizing Machine with mixer and crusher to existing design of Ube Pulverizing Machine, 3) To test and evaluate Ube Pulverizing Machine with mixer and crusher in terms of: a) Production Rate b) Efficiency in Pulverizing. To assess the performance of the machine, tests and trials were conducted using mixer, crusher, and pulverizer, and speed settings of 10 Hz, 20 Hz, 30 Hz, 40 Hz, and 50 Hz. The results showed that, for the mixer, the recommended speed setting is 25 Hz for 2.5 kg steamed Ube in order to achieve a rating of 3 in terms of a quality mix which is considered good and for crusher 25 Hz rpm in order to achieve a rating of 4 in terms of quality crush, which is considered very good. Based on the results of this study, In order to fasten the process of ube powder making the researchers created a 3 in 1 machine that will be useful in process. The Ube Pulverizer Machine with combine Mixer and Crusher has a good production rate of pulverizer is 10.4514 g/sec with an efficiency of 89%. A trial is conducted to measure the maximum load of a mixer and crusher; therefore, the researcher learned that the mixer and

crusher's maximum load is 2.6 kg.

STREET SWEEPER PENTACYCLE WITH SWEEPER CASTER WHEEL FOR ROAD HUMPS

By: Calvince C. Cubel
Dan Rey C. Larioza
Shaine Aira L. Siores

ABSTRACT

In this study, the researchers design a street sweeper pentacycle with swivel caster wheel for road humps with aim to be an environmentally friendly alternative in cleaning the streets. The vehicle is equipped with a broom and dustpan attached to the front wheel, allowing for efficient cleaning of streets. The street sweeper pentacycle with swivel caster wheel was tested in a residential area and its performance was evaluated in terms of cleaning capacity, sweeping speed, and sweeping efficiency. The results showed that the bike was able to effectively clean a street under 30 minutes, with an average cleaning capacity of 1.45 liters per minute. Additionally, the street sweeper pentacycle has swivel caster wheel besides the rotating brush and dust pan to overcome road humps without spilling the collected trash. In conclusion, this study suggests that the street sweeper pentacycle with swivel caster wheel for road humps is a viable and environmentally friendly alternative to traditional gas-powered street sweepers. Its ability to effectively clean streets while minimizing noise and emissions makes it a suitable option for urban areas seeking to improve their sustainability and quality of life.

DEVELOPMENT OF SHOCK ABSORBER COIL SPRING COMPRESSOR

By: Jhamil S. Restar
Darwin C. Infante
Harvey L. De Guzman
Mark P. Abella

ABSTRACT

The proponents designed the Shock Absorber Coil Spring Compressor is to compress 4 to 7 inches shock absorber coil spring of 4 wheels cars into their compress limit for the compressor pin above the shaft. Like any other

compressing devices, the Shock Absorber Coil Spring Compressor has compressing components which are the four angle bar as the arm powered by impact drive. This four angle bar steel arm compressed the shock absorber coil spring by using the screw that is forcefully rotate by the impact drive to move the four arms to the center to compress the spring. The machine is powered by an impact drive that provides rotation motion for the power screw which is connected to the four angle bar steel arm. The arms are connected to the body of the machine to support the compressing power. The proponents conducted different research regarding for the entirety of the design. The research directly revolves all about the process of the machine fabrication. Then the proponents prepared the necessary equipment to be used in the fabrication of the machine. Before deriving the final design, the proponents have encountered some minor problems. These problems mostly related to the compressing of the screw. To resolve this, the proponents adjusted the position of the arm and power screw. After several tests, the machine finally performed the target desired performance.

AUTOMATED SALTED EGG CLEANING MACHINE

Stefanie C. Blastique
Charlotte V. Librero
Noemi M. Sulataro

ABSTRACT

The automated salted egg cleaning machine was developed to modernize the process of cleaning eggs, save time, decrease manpower and labor costs, and minimize egg breakage. The study is supported with data and information related to the machine used by the researchers. The automated salted egg cleaning machine that was fabricated consisted of a stepper motor and Arduino that automated the speed of the conveyor and the chain and sprocket for the conveyor system. Additionally, the researchers used brushes suitable for cleaning the clayed egg shells. Pressurized water sprayers were used when the eggs were being moved along the conveyor and rubbing against the brushes. The eggs are transported to the receiving container once they have been cleaned. The machine has a 98% cleaning rate, considering that the cleaned eggs do not have signs of other curing materials on the eggshell's surface. The Automated Salted Egg Cleaning Machine measured its

performance in terms of production rate (51 eggs per minute) and defect rate (0.26% of the total number of eggs cleaned). Based on objective standards, the production rate must reach 30 eggs per minute with a defect rate of not less than 0.30%.

AUTOMATED TEMPERATURE MAINTAINING TRAILER FOR PIGLET TRANSPORT

Esquivel, Aldrin P.
Evangilista, Joker I.
Ferma, Idmarck L.
San Jose, Francis Ker H.

ABSTRACT

The researcher's goal was to create an Automated Temperature Maintaining Trailer for Piglet move to help backyard or small-scale piggies transport the piglets by using a trailer with a moisture sprayer and temperature sensor inside to monitor and regulate the trailer's interior temperature. The study's objectives were to: 1.) design a trailer truck with a capacity of 100 kg; 2.) maintain the required temperature inside the trailer using an NTC temperature sensor probe regulator; and 3.) assess the trailer's capacity, the required temperature for moving pigs, and the amount of water required to maintain the required temperature.

A 12V 8Ah built-in battery powers the Temperature Maintaining Trailer for Piglet Transport, and a pump with a flow rate of 3.6L/m is utilized to pump water from the water tank, which can hold 16L of water, to flow to the pipe.

The study's main objective is to develop an Automated Temperature-Maintaining Trailer for Piglets in order to prevent the development of the Porcine Stress Syndrome (PSS), which is brought on by travel-related stress. Pigs can experience Porcine Stress Syndrome (PSS), a disease. Hyperthermia brought on by stress or vigorous exercise serves as its definition. Open mouth breathing, blotchy skin, muscle tremors, and stiffness are symptoms of PSS in pigs. It's beneficial to softly sprinkle some water on the pigs if they start to make this type of indication.

CARBONIZED CACAO POD HUSK PNEUMATIC BRIQUETTING MACHINE

Hernandez, Charl's Richard M.
Mercado, Liezel M.
Viterbo, John Denver B.

ABSTRACT

This study aims to construct an effective Carbonized Cacao Pod husk Pneumatic Briquetting Machine that can help in Cacao Organization in Nagcarlan, Laguna.

The Cacao Pod Husk Pneumatic Briquetting Machine was designed by the researchers to lessen the production time of machine and making huge number of briquettes. The carbonized Cacao Pod Briquettes can be alternative fuel source of energy.

The machine consists a single cylinder attach in under plate with 20 moulders in three compression and it is powered by an Air Inflater for its mobility. The diameter of the cylinder tube is 2 inches with the height of 5 inches while the piston has a diameter of 1.9 inch and height of 6 inches. The researchers will use two types of binder; the cassava flour and corn starch that will mixed up to the main ingredients which is the carbonized cacao pod husk.

CASSAVA CHIPS SLICING AND DRYING MACHINE

Manalang, Gian Mae R.
Martin, Ma. Victoria N.
Toleco, Cris Ann Joy A.

ABSTRACT

The researchers designed and fabricated cassava chip slicing and drying machines to improve the traditional method of slicing and drying. The project study, Cassava Chips Slicing, and Drying Machine were designed to help the local cassava chips producers. It targeted small and medium enterprises to sustain production as the equipment makes the slicing and drying possible even during the rainy season. Also, the study was designed and developed to shorten the drying time of cassava chips from several days to avoid over and under dry, thus lessening the risk of fungal attack. Specific objectives were (1) To determine the performance of cassava chips slicing and

drying machine in terms of (a) Slicing Efficiency, (b) Drying Rate, and (c) Safety. Then (2) To design a four-bladed circular bed plate that can slice cassava into chips with 1 mm thickness. Lastly, (3) To design a load cell that will determine if the moisture content of dried cassava has reached 14-17%.

It is composed of two chambers; the upper chamber is the slicing components and electrical supply and the lower chamber is the drying machine with a load cell inside. The slicing chamber can hold up to 1 - 2 kg of peeled cassava and the drying chamber can hold two trays with 1kg of sliced cassava, it has a temperature sensor to monitor the air temperature circulating the chamber and a load cell to monitor the weight changes that represented the moisture content. Based on the testing conducted, it reveals that using the cassava chips slicing machine the slicing efficiency averaged resulted with 91% compared to traditional, and using the cassava chips drying machine resulted in 20 minutes at 60°C the 1 kg of sliced cassava reaching the final moisture content of 17 % from its initial moisture content of 45% compared to traditional drying of almost 2 days. This machine can be beneficial as it was tested and evaluated as “Highly Acceptable” in terms of safety during the research study.

DESIGN OF ADJUSTABLE CHICKEN MEAT CUTTING MACHINE

Ayala, Justine P.
Maligaya, Bricks Keno T.
Melecio, Russel Beth A.
Robles, Kenneth

ABSTRACT

The purpose of this study was to design and improve a chicken meat cutting machine for small local business owners in order to minimize the time required for cutting chicken meat. To achieve this goal, the study focused on four objectives: 1) the design and fabrication of manually adjustable circular blades for chicken meat, 2) the provision of different testing for chicken meat using different speed settings, 3) the evaluation of the machine in terms of the quality of the cut, the speed to cut the chicken meat, and the safety features of the machine, and capacity of the machine, 4) to compare the existing design to adjustable chicken meat cutting machine in terms of the quality of cut, speed to cut chicken meat, and the capacity of machine.

To assess the performance of the machine, tests and trials were conducted using blade clearances and speed settings of 30 Hz, 40 Hz, and 50 Hz. The results showed that, for all blade clearances, the recommended speed setting is 40 Hz or 1200rpm and 50 Hz or 1500 rpm in order to achieve a rating of 3 in terms of quality cut, which is considered good. It was also found that as the speed of the motor increases, the speed of the cut also increases, leading to higher efficiency in the cutting process.

Based on the results of this study, the researchers recommended the following for further improvement and enhancement of the chicken meat cutting machine: the use of a 3-phase ac motor with a 3-phase power source to maximize the capacity of the motor and improve the performance of the machine in terms of cutting at maximum capacity; and the use of a higher speed when cutting through bones and a lower speed when cutting boneless meat to improve the quality of the cut. It was determined that the adjustable chicken meat cutting machine was the best option for cutting chicken meat, making it suitable for both commercial and personal settings.

DEVELOPMENT OF PILI NUTS DESHELLING MACHINE

Jezreel Grace M. Carreon
Justin C. Catil
John Mar Villegas

ABSTRACT

The researchers innovate the existing study of Pili Nut Sheller into Design and Improvement of Pili Nuts Deshelling to help the pili nuts de shelled without damaging the kernels. In particular, the study intended to 1) To design an effective deshelling blade to produce good quality pili kernels. 2) To determine if there is a significant the existing study of Pili Nut Sheller and Design and Improvement of Pili Nuts De Shelling Machine in terms of: a) Speed b) Time 3) To test and evaluate the performance of the propose machine in terms of: a) Cracking Rate b) Cracking Efficiency 3) Whole Kernel Recovery 4) Quality of Pili kernel using the proposed blades 5) Safety.

The machine entailed an investment cost of P59,899.50 per unit. The following recommendations of the researchers for further improvement and enhancement of the designed and improvements of pili nut de shelling machine 1) To improve the performance of the Pili Nuts De Shelling Machine,

develop a loading mechanism other than the C-Channel that we used. A (customized adjustable hopper) that will place different sizes of the pili nut to be perfectly centered to the blades is highly recommended. It is also advisable to use other materials on the surface of the hopper or put a (powder coating) to reduce the friction between the pili and the hopper so the pili nut will slide smoothly. 2) Design machine guards that are easy to detach for maintenance purposes and accessibility to the parts underneath. 3) Interlocking wheels (rubber caster wheel) are recommended for convenient and easier transportation of the machine in order to enhance portability. 4) It is recommended to use a (customized hexagonal blade carrier) to maximize the utilization of the circular blade. Thus, adding another hopper and following to do the recommendation of adding the mentioned blade in order to maximize the efficiency of the machine, increase of the output and the maximum capacity and delimitation of the machine.

MECHANICAL HOG AND CHICKEN INTESTINE CLEANING MACHINE

Alaman, John Reez P.
Dizon, Jexter C.
Moreno, Mark Zosimo O.

ABSTRACT

This research aims to develop a “Mechanical Hog Intestine Cleaning Machine” that will surely obtain the cleanliness of meat by-products particularly a hog’s intestine. The process of breeding, before pigs are transported to the slaughterhouse, preservation, transportation, processing, and consumption have impacts on how the by-products is being out in the market. The importance of slaughter also has a big impact on food safety and hygiene, for it is one of the main processes that a hog undergoes upon having its by-products. One of the issues is that a slaughtering method that complies with the criteria for an acceptable slaughtering process is necessary if slaughter area is cleaned and sanitized. Each stage must have the necessary equipment to ensure food safety and hygiene, increase the effectiveness of slaughter, lessen work hours, and safeguard workers' health. Also, the tools used for cleaning intestines are being under-rated because of some methods that really takes time upon the cleaning process.

The new type of a simple machine that is suggested in this paper can increase productivity while using less labor to clean hog intestine for marketing reasons. As pig intestine consumption continuously increase from year-to-year basis due to the widespread use of it for some foods like sausages, a fast-cleaning process of intestines will be a great factor of the Mechanical Hog Intestine Cleaning Machine for the marketing industry.

PERFORMANCE EVALUATION OF A DOUBLE-STAGE THREE-BLADED SAVONIUS VERTICAL AXIS WIND TURBINE

Maghirang, Ivan Paul P.
Rivera, Vincent A.
Tantoy, Shara Mei G.

ABSTRACT

The purpose of this study was to fabricate a double-stage savonius vertical axis wind turbine with three blades. To achieve this goal, the study focused on three objectives: 1) to fabricate a lightweight Double-Stage Three-Bladed Savonius Vertical Axis Wind Turbine in terms of the material selection, parameters such as rotor height and diameter, availability of components, easy to install; 2) to design a small-scale vertical axis wind turbine with detachable four-legged frame; and 3) to develop a Double-Stage Three-Bladed Savonius Vertical Axis Wind Turbine that is applicable to install in any location. To assess the performance of the machine, trials were conducted in the vicinity of Laguna University, specifically in the side of the Oreta building, New Building and in the open field in front of the Oreta. The results showed that the savonius wind turbine can produce 3-4 watts within 5-10 mins, which is considered good.

Based on the results of this study, the researchers recommend the following for further improvement and enhancement of the performance of the double-stage three-bladed savonius vertical axis wind turbine: to make the savonius wind turbine lighter, use the 3D printing process for fabrication of Savonius blades; to improve the performance of the machine, use a small scale stainless steel shaft; and provide an application on the generated power by the Savonius Vertical Axis Wind Turbine.

**SEMI-AUTOMATED COCONUT DEHUSKER WITH COCONUT
HUSK SHREDDER MACHINE**

Bautista, Andrei T.
Bonita, Jarmine B.
Sumadsad, Reign Eafryll P.

ABSTRACT

The purpose of this study was to develop the design and fabricate an automated feeding of coconut dehusker and shredder machine. The general objective of this study was to develop the design and fabricate an automated feeding of coconut dehusker and shredder machine. To achieve this goal, the study focused on the following specific objectives: to design a coconut dehusker that can dehusk and shred husks from a quantity of 6 coconut fruits with a size range of 18 – 23 centimeters in diameter per minute, to compare the semi-automated coconut dehusker to the existing design of coconut dehuskers in terms of cycle time, quality of coconut dehusked, and capacity, and to test and evaluate the semi-automated coconut dehusker with coconut husk shredder machine in terms of dehusking and shredding cycle time, quality of coconut dehusked and shredded coconut husks, and efficiency.

To evaluate the performance of the machine, tests and trials were conducted. These include the comparison to the existing design of coconut dehuskers, its test and evaluation, output product capacity, and its engineering requirements. The results showed that the machine can dehusk and shred husk from a quantity of 6 coconut fruits with a size ranging from 18 to 23 centimeters in diameter per minute. The existing dehusking machine was innovated by adding semi-automated mechanism used for removing the coconut husks and a shredder. The dehusking and shredding process of machine has the actual cycle time of 6 to 12 seconds per coconut fruit which has exceeded the expected cycle time of 10 seconds per coconut fruit. The dehusking unit of the machine has an efficiency ranging from 66.6667 to 83.3333 percent which is greater than 50 percent. The dehusking and shredding unit of the machine has a protective covering.

Based on the results of this study, the researchers recommend the following for further improvement and enhancement of the machine: to improve the versatility of coconut varieties for dehusker machine, use a larger power specification of motor; to allow dehusking of the coconut crown by a

dehusker machine, install a coconut crown removing mechanism or machine; to allow dehusking of thin-husked coconut fruit, improve the design of dehusker roller spikes and clearance between; to avoid clogging of coconut fruit during operation of the machine, increase the clearance around rotary mechanisms; to improve the shredding process, sharpen the shredder roller blades; and to prolong the working condition of chain drive mechanisms, regular and proper lubrication is recommended.

TOMATO SIZE GRADING MACHINE WITH GROOVE INCISION

Dela Cruz, Aron R.
De Lima, Vincent G.
Gabatan, Gerryco T.

ABSTRACT

This research study aims to help small local farmers in increasing production of tomatoes. The researchers developed a Tomato Size Grading Machine with Groove Incision intended to provide alternative approaches to tomato processing with ideas or better designs when dealing with food particularly with tomatoes. Due to problems occurring derived from existing machines that have multiple issues with handling the produce such as belt slipping, blockages, material carry back and spillage that can affect entire operations resulting in loss of both money and productivity. This led to the design and development of Tomato Size Grading Machine with Groove Incision with efficient and better performance for the agricultural food industry. In particular, 1.) To design a shaft with grooves that will fit the Polyurethane Belts to prolong the lifespan of the Tomato Size Grading Machine. 2.) To determine the appropriate depth of shaft grooves as an alternative to pulley with the same tomato size grading performance. 3.) To compare the Tomato Size Grading Machine with Groove Incision to traditional way or existing tomato size sorting machines in terms of Efficiency in Grading, Accuracy, and Safety.

The prototype's major components are the 1.5 single phase induction motor, polyurethane belts, gearbox motor, chain and sprocket assembly and the container bins. This machine can grade tomatoes into 4 classification of sizes in an average time of 35 seconds.

Prototype Testing and Trials were performed. Based on the evaluation of the testing, the tomatoes fall under their proper size category and have consistent output. The machine entailed an investment cost of P 122, 357.00 per unit.

The following are the recommendations of the researchers for further development and improvement of the size grading machine: 1.) The machine may increase the size of the motor that means more power and torque of the machine. Along with the compatible motor speed controller equipped to have more options in the speed settings. 2.) Extend the distance between shafts per size to further increase the travel time of the tomatoes moving along the belts. So that the tomatoes can have more time or provision for screening to fall unto their designated sizes before moving on to the next size. 3.) Addition of supporting arm or panels attached to the end of shafts to push the tomatoes just in case of blockages occurring. 4.) Utilize the 8mm polyurethane belt and grooves into different sizes to ensure firm hold of the fittings unto the shafting that enables more surface area for the tomatoes for smoother grading process.

COLLEGE OF BUSINESS ADMINISTRATION AND ACCOUNTANCY

PERCEIVED ADVANTAGES OF CLOUD ACCOUNTING SOFTWARE ON BUSINESS PERFORMANCE AMONG SELECTED ACCOUNTING FIRMS

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ABSTRACT

The relationship between information technology and organizations has grown significantly through the years, as it is crucial for organizations to remain adaptable in collecting, assessing, and sharing data. The research aimed to determine the perceived advantages of Cloud Accounting Software on business performance among selected accounting

firms in Calamba, Laguna. It sought to answer the following: (1) What are the perceived advantages of cloud accounting software among selected accounting firms in terms of: Availability; Cost Effectiveness; and Automation? (2) What is the level of business performance of selected accounting firms in terms of: Client Retention Rate; Business Continuity; and Employee Engagement? (3) Is there a significant relationship between the perceived advantages of cloud accounting software and the level of business performance of selected accounting firms? (4) What program may be proposed based on the research findings?

In this study, quantitative-descriptive was used as the research design. The respondents are 18 accounting firms in Calamba, Laguna. The responses were collected through online questionnaires using Google Forms and physical surveys. A purposive sample was chosen for this study as not many accounting firms in the chosen research locale and using Cloud Accounting Software. A four-point Likert Scale was used to capture and quantify the input of the respondents. Pearson R Correlation is used to analyze the data and test the hypothesis.

The weighted mean for the perceived advantages of Cloud Accounting Software in terms of availability, cost-effectiveness, and automation are 3.86, 3.58, and 3.62, respectively. Findings showed that there is a significant relationship between the perceived advantages of Cloud Accounting Software and the level of business performance of selected accounting firms.

The availability of the software has a substantial advantage in terms of accessing computational data, made collaboration easier to share, and permitted real-time analysis. This research may be used by accounting firms as a basis on how the perceived advantages of cloud accounting software such as availability, cost effectiveness and automation affect the business performance of accounting firms. The study posted results of a high correlation between the variables used. Other researchers may be encouraged to discuss other factors to consider in terms of Cloud Accounting Software and business performance. In this way, they can explain well how these two are related to one another.

**SOCIO-ECONOMIC PROFILE AND THE LEARNING STYLES OF
SELECTED ACCOUNTANCY STUDENTS AT LAGUNA UNIVERSITY**

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ABSTRACT

The COVID-19 pandemic affected all sectors of the economy, it disrupted global supply chains, caused a drop in international tourism which resulted in business closures severing unemployment rates. The profound impacts of the global health crisis extended even to education (Uaminal, 2021). The researchers took the initiative to launch a study geared at providing a comprehensive take on the implications of COVID-19 on income, residence, employment, and education in relation to learning styles. The researchers aimed to identify the socio-economic profile of the selected respondents in terms of household income, residence, parents' employment status, and parents' educational attainment and find out its influence and significance on the students' learning styles, particularly in the cognitive, affective, and physiological aspects.

The relationship between the influencing factors of the socioeconomic profile and the level of learning styles of accounting students at Laguna University was determined and assessed using a descriptive correlational research design. Google Forms was used to distribute the questionnaire to the randomly selected first to fourth-year Accountancy students. The sample size of 285 was computed using a 5% margin of error and a 95% level of confidence.

According to the study, the majority of Laguna University respondents were classified as belonging to low-income households residing in District 4, particularly, Santa Cruz. Additionally, data showed that all of the respondents' parents were able to attend school and that the majority of their household's fathers were employed to support the family. Correspondingly, the level of influence of the Socio-economic profile was found to be influential to the Cognitive, Affective, and Physiological Learning Styles, garnering mean of 3.81, 3.73, and 3.58, respectively. The findings revealed that only one socioeconomic profile factor—household income—was statistically significant

for cognitive and physiological learning styles while the remaining socio-economic profile factors were not, given corresponding R- values and p-values of ($r= 0.1463$, $p= 0.013$; $r= 0.1193$, $p=0.044$) respectively and interpreted with Negligible Correlation. The null hypothesis is, therefore, accepted.

Overall, the study revealed that the respondents have distinct socio-economic profiles. The level of the influence of socio-economic profiles were found “influential” to their cognitive, affective and physiological learning styles. Only the household income was statistically significant to the cognitive and physiological learning styles of the respondents while the others were not. With these, the researchers proposed an action plan to be utilized for learning development.

**FACTORS AFFECTING THE CPA LICENSURE EXAMINATION IN LAGUNA
UNIVERSITY A BASIS FOR AN INTERVENTION PROGRAM**

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ABSTRACT

Certified Public Accountants are not born, they are made. The CPA licensure examination is considered to be one of the most difficult professional licensing exams. As perfect as it sounds, the road to success is and will never be easy. No one has ever passed the exam without experiencing the worst or staying in their comfort zone, but everyone puts 100% of their effort into attaining the results they want. It necessitates a thorough understanding of all accounting principles, business legislation, and taxation. The examinees also need a systematic, proper and sound preparation plan. This study aims to know the relationship between the CPA licensure examination rating of the respondents and the motivational factors which include personal drive, goal setting, initiative, and positive attitude as well as academic factors which include study skills and habits, concentration and comprehension, time management, and utilization of academic resources. The research used a purposive sampling, percentage, weighted

mean and standard deviation, regression analysis and likert scale to identify the relationship between the CPA licensure examination rating and the motivational and academic factors, the data were obtained from 43 respondents of Laguna University students who took the CPA licensure examination in 2018 – 2021 and served as the guide for interpreting data. Majority of the CPA licensure examination takers of Laguna University from 2018 – 2021 were female, aged 22 – 25 years old who graduated during the year 2016 – 2017 with a General Weighted Average of 1.76 – 2.00 and only one out of 43 respondents passed the examination with a CPA licensure examination rating of 75.00 – above. Most of the takers' household consist of 4 – 6 members, where most of the mothers were high school graduates but unemployed and fathers were high school graduates and working in operational and technical category with an estimated family monthly income of 20,000 and below. Motivational factors which include personal drive, goal-setting, initiative, and positive attitude and academic factors which include study skills and habits, concentration and comprehension, time management, and utilization of academic resources all have affected the performance ratings of the takers to a great extent. The study revealed that the CPA licensure examination performance ratings of the respondents from 2018 – 2021 in Laguna University have a significant relationship with the motivational factors and academic factors. Hence, the researchers proposed recommendations, established methods, interventions, and remedial practices to increase the number of CPA licensure examination passers in Laguna University.

ONLINE SHOPPING AND PURCHASING BEHAVIOR OF SELECTED CONSUMERS IN BARANGAY BAGUMBAYAN, SANTA CRUZ, LAGUNA

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ABSTRACT

This digital age has also brought huge changes to the lives of consumers most specifically to their consumption and purchasing behavior. Online shopping has become more popular since it is convenient, quick, and time-saving. Although internet shopping has numerous benefits, some consumers may believe that it is unsafe and unreliable because they are unable to visually inspect their products. Some customers reported receiving products that were broken, having delivery issues, not receiving their orders, or even worse, receiving fake deliveries. This study provided useful information and understanding of online shopping and purchase behavior of online shoppers in Brgy. Bagumbayan, Santa Cruz, Laguna, and might be highly significant and beneficial to consumers, business owners, and researchers. Thus, the main aim of the paper is to evaluate and know more about online shopping and its significant effect on the purchasing behavior of selected respondents. The study will answer the following question: (1) What is the demographic profile of online shoppers? (2) What extent are the following purchasing behaviors affecting online shopping? (3) Is there a significant relationship between the purchasing behavior in online shopping and the demographic profile of respondents?

The research paper used quantitative approaches and descriptive research methodology. Data was gathered from a questionnaire distributed via Google Forms and Face-to-face modes to provide helpful information and understanding of online shopping and the purchasing behavior of the online shoppers in Brgy. Bagumbayan, Santa Cruz, Laguna. Survey questionnaire contained a five-point Likert scale from always to never that is tallied and analyzed by the researchers in an effective manner. With this data, Chi-Square Test was used to determine the significant relationship

between purchasing behavior in online shopping and demographic profile of respondents.

The findings revealed that the relationship between the consumer purchasing behavior and the demographic profile of respondents is partially sustained since the majority of p-values are lower than the level of significance; hence the null hypothesis is rejected. As a result, there is a significant relationship between demographic profile and the purchasing behavior in terms of gender, age, employment status, source of income, online apps used frequency of online transactions and length of time/years in online shopping as perceived by the respondents.

Consequently, the results showed that online businesses can figure out the most efficient strategy to capture their customers' interest, encourage them to access online shopping applications, and, most significantly, purchase behavior of online shoppers that affect online business. Future study will mostly focus on improving research solutions and discover more about consumer purchasing behavior.

EFFECTS OF TRAIN LAW TO PROFITABILITY OF SELECTED SMES IN STA. CRUZ LAGUNA

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ABSTRACT

This study focuses in the "Effects of TRAIN Law to Profitability of Selected SMEs in Sta. Cruz, Laguna". This study aims to determine the effects of TRAIN Law implementation on the profitability of the selected small and medium enterprises in Sta. Cruz, Laguna. In economics, taxes are levied on whoever bears the cost of the tax, whether the entity being taxed, such as a corporation, or the end users of the business's goods. Taxes have developed over time; governments have created many tax systems, one of which being the Tax Reform for Acceleration and Inclusion Act, popularly known as TRAIN Law.

The findings of the study will know the Effects of TRAIN Law to Profitability of selected SMEs in Santa Cruz Laguna and the following individuals will benefit from the study's findings are community, future researcher, and owners of small and medium enterprises. Descriptive research was used to determine the effectiveness of TRAIN Law on the profitability of selected small and medium enterprises in Sta. Cruz, Laguna. Survey Questionnaires were used in collecting data and information for this study. The data were tabulated and interpreted using weighted mean and standard deviation, Doornik-Hansen test, Barlett's test of sphericity, KMO Measure of Adequacy and Principal Component Analysis, Pearson's chi-square and narrative analysis to answer (1): What is the effect of TRAIN law in selected small and medium enterprises in Sta Cruz, Laguna in terms of Simplified personal income tax, Value added tax; and Pricing, (2): What is the profitability of selected small and medium enterprises in Sta Cruz, Laguna in terms of Profitability ratio, Break-even point, and Return on investment, and (3): Is there a significant relationship between the effects of TRAIN Law and the profitability of selected small and medium enterprises in Sta Cruz, Laguna?

Based from the data gathered, the researchers concluded that TRAIN Law have a positive effect in the taxes of small and medium businesses in Sta. Cruz Laguna. In contrast, Simplified Income Tax, Value-added Tax and Pricing are "effective" in increasing profitability of small and medium businesses. Also, the level of profitability in terms of Profitability Ratio, Break-even Point and Return on Investment are "effective". The effects TRAIN Law implementation has a significant relationship between the profitability. This implies that any increase in the profitability is linearly proportionate to any changes in the effects of TRAIN Law.

ONLINE BANKING SECURITY MEASURES OF SELECTED COMMERCIAL AND RURAL BANKS IN SAN PABLO CITY, LAGUNA

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This research entitled “Online Banking Security Measures of Selected Commercial and Rural Banks In San Pablo City, Laguna” intends to study how bank users assess the extent of the security of online banking in terms of customer service, hackers, and theft, and password security. The research also intends to distinguish to the respondent’s awareness on the security measures for protecting online banking from risks including unencrypted data, malware, unsafe third-party services, manipulated data, and spoofing. Currently, the use of the Internet has completely transformed the banking industry. Without having to go to the bank branch, people can bank whenever and wherever they choose. Although Internet banking is quick and easy, there are a number of security concerns. To protect consumer safety while engaging in various online transactions, banking institutions have adopted a number of steps. In this situation, an attempt has been made to review and assess the Internet banking security procedures used by the chosen banks for the benefit of their clients. With the use of a suitable research tool, the current investigation was conducted. After conducting the study, the researchers are expected to compare the security measures in protecting online banking in selected commercial banks and rural banks in San Pablo City, Laguna. The study is conducted by having survey questionnaires to twenty-five (25) bank users from commercial banks and another twenty-five (25) bank users from rural banks. After choosing 50 clients, analysis is done using their responses a few recommendations are provided after. The result shows that bank users can assess the extent of security of online banking by having great customer service, low experience in hacking, and great password security for both rural and commercial banks. The research also shows high awareness on bank users of online banking risks including unencrypted data, malware, unsafe third-party services, manipulated data, and spoofing for both rural and commercial bank users. Overall, the study outcome displays that both rural and commercial banks are safe to use in online banking since both

banks have high security. Through that, the researchers proposed an action plan to boost the marketing campaign. Therefore, the researchers conclude that rural banks are also safe to use in online banking just like commercial banks and it will be more cost-friendly to use rural banks since it is available in local districts and have a lesser maintaining balance.

EFFECTS OF INCREASED SHOPEE FEES ON THE SELLER’S BUSINESS PROFITABILITY IN SAN PABLO CITY, LAGUNA

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ABSTRACT

Shopee a fast-growing e-commerce platform in Southeast Asia to sell online and purchase products. Electronics, kitchen, and fashion items are just a few of the many categories in which Shopee products are offered. Identified as the major e-commerce platform as the retail landscape in the Philippines continues to transform and grow because of Covid19. However, starting from August 1, 2020, the transaction fee or handling fee of Shopee has increased from 1.5 to 2.24% including the Value Added Tax. Additionally, the commission fee that is charged only to sellers that are enjoying the services and benefits of Shopee Mall are now subject to 2% starting April 18, 2022.

Moreover, this study was undertaken to determine the Effect of Increased Shopee Fees on the Seller’s Business Profitability in San Pablo City, Laguna. It specifically determined the status of monthly revenue, expenses, net profit, and the strategies used by the respondents. Quantitative descriptive research design was utilized and used as a method to draw out data. This research involved the participation of 52 Shopee sellers who have been selling before and after the increase in fees. The research tool used in the study was a researcher-made questionnaire in the form of a Google forms survey to gather the needed data. The sampling technique used was Purposive Sampling. The collected data was tailed, tabulated, and treated statistically to establish the effect of increase in Shopee fees on the Seller’s Business Profitability.

The results of the study proved that there is a significant difference between the Monthly Revenue, Monthly Expenses, and the Net Profit before and after the Increase in Fees of Shopee Sellers. The study also shows on how the Shopee Sellers used different marketing strategies including the Product Pricing, Retargeting Campaign, Affiliate or Influencer Marketing, and the Social Media Marketing to cope up with the increase in Fees.

Furthermore, the results of the study can help the Shopee sellers, future online sellers, online buyers and Shopee. It is recommended to provide more information about the various Fees on the Shopee website. For the sellers, it is recommended to be precise in calculating their final pricing since this determines the profit value of their product.

ENHANCING DEBT MANAGEMENT PRACTICES TO THE ATTITUDE OF MICROFINANCE INSTITUTION MEMBERS AT

MAGDALENA, LAGUNA

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ABSTRACT

Everybody experiences having debt at some point in their life. It could be a loan of money or debt of gratitude. Especially people in the poverty line and below, they have no choice but to borrow money to survive, therefore managing debt is important to avoid being buried in debt. This research aimed to evaluate the enhancement of debt management practices to the attitude of Microfinance Institutions members at Magdalena, Laguna. Specifically, to answer the following questions; To what extent of debt awareness of Microfinance Institutions' members as regards to terms and conditions in granting loan in terms of interest rate, loan repayment, contract of amortization, fees and penalties, and breach of default? To what extent or willingness/attitude of Microfinance Institution members in supporting the debt management practices in terms of reading debt management books and articles, attending debt management seminars, and enrolling at financial management short courses?

The survey was conducted at selected places at Magdalena, Laguna. Data were gathered from 60 respondents and analyzed to finalize the study. The study used a non-probability sampling method of convenience sampling, where respondents are selected according to accessibility and willingness to participate.

Based on the demographic profile of the respondents, the majority are at the age ranging from 51 to 60, mostly female, operating a business is their major source of income ranging from Php 1,000 to Php 10,000 per month. The average family members in the household are 1 to 5 members, which is 0 to 3 of the members are still studying. Moreover, the majority of them borrowed money for family maintenance twice a year with the average amount of Php 1,000 to Php 20,000 being borrowed. The debt awareness in terms of interest rate, loan repayment, contract length of amortization, fees and penalties and breach of default has a weighted mean of 3.49, 3.49, 3.48, 3.36 and 3.06 respectively. They all have a verbal interpretation of "Great Extent" The overall debt awareness with regards to the terms and condition has a verbal interpretation of "Great Extent". The extent of willingness to support the debt management practices with regards to attending debt management seminars resulted in a weighted mean of 2.86 and has a verbal interpretation of "Moderate Extent". The extent of willingness with regards to reading debt management books and articles has a weighted mean of 2.65 and a verbal interpretation of "Moderate Extent". The extent of willingness with regards to enrolling to financial management short term courses has a weighted mean of 2.16 and a verbal interpretation of "Slight Extent". The overall extent of willingness to support the debt management practices has a verbal interpretation of "Moderate Extent". The relationship between the debt awareness with regards to the terms and conditions and the attitude on the debt management practices has no significance. Thus, the relationship between the two variables is not significant and the hypothesis proposed is accepted.

**GRADE RETENTION POLICY AND ITS ACADEMIC AND PSYCHOLOGICAL
IMPACT AMONG SELECTED BSA STUDENTS IN LAGUNA UNIVERSITY**

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ABSTRACT

In recent years, Laguna University's Accountancy program introduced a grade retention policy that requires BSA students to retain a certain GPA in order to ensure passing rate of the Certified Public Accountant Licensure Examination (CPALE). Any student who maintains the required grade will be considered to be in good standing. Meanwhile, failure to maintain the required grade of the implemented grade retention policy, can be subject to warning, probation, or dismissal. The main objective of this study is to determine the impact of grade retention policy to the academic grade and psychological well-being of the BSA students. Also, this study examined the extent of students' awareness towards accountancy grade retention policy, and its relation to academic grade and psychological well-being indicators. Moreover, this study is significant for Laguna University because it may be used to develop more successful programs and policies aimed at improving students' academic performance, allowing them to generate competent BSA students who can pass the Certified Public Accountant Licensure Examination.

This research paper used the descriptive-correlational research design in gathering the data, and used Slovin's formula to compute the needed total sample size of the respondents. The study was conducted in Laguna University (LU), from the total population of 348 BSA students with a 5% margin of error and a 95% level of confidence, a sample size of 186 needed respondents was computed. The sample of 186 BSA students was surveyed through google form during their first semester of the Academic Year 2022-2023.

The findings indicated that the majority of respondents were extremely aware of accountancy grade retention policy, especially the first year students, while the shifters from other colleges are the least aware. Moreover, the study discovered that there is a minimal to no significant

relationship between the respondents' awareness of accountancy grade retention policy and their perception towards the academic grade indicators and psychological well-being indicators. Also, the study revealed that there is a significant relationship between academic grade indicators and psychological well-being indicators

Furthermore, this study revealed that the students perceived grade retention policy as a significant factor in the academic grade indicators (attendance rates, general weighted average, and cohort survival rates), and psychological well-being indicators (feelings of being in control, competent, confident, motivated, and improved self-esteem), these implications suggest that grade retention policy has an average positive impact on BSA students' academic grade and psychological well-being indicators. With all these findings of the study, the researchers recommend that the accountancy grade retention policy be maintained and continued to be a guide to students along their way to CPALE.

**READINESS OF BS ACCOUNTANCY STUDENTS TO LIMITED
IN-PERSON CLASSES IN LAGUNA UNIVERSITY**

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ABSTRACT

Education has been one of the most affected aspects of life since the rise of the novel coronavirus in the country. Numerous strategies and techniques have been implemented to continue providing quality education among learners and future generations. The primary objective of this study, "Readiness of BS Accountancy Students to Limited In-person Classes in Laguna University," was to determine the extent of readiness of students to the new type of learning setup. Furthermore, the purpose of this paper was to identify the advantages the students gained from learning in limited in-person classes, as well as the challenges they encountered and what action they may take to overcome those difficulties.

To test the study's research hypotheses, self-made questionnaire was distributed to students who served as respondents, particularly, to

selected Bachelor of Science in Accountancy students from all year levels. The questionnaire was sent via Google Forms with their consent. Similarly, Raosoft was used to analyze the responses, with a 5% margin of error and a 95% level of confidence, yielding a sample size of 286 out of a population of 348. Apparently, the evaluated results with the stated variables in the paper showed that the extent of respondents' readiness in limited in-person classes has a relationship to the level of advantages of in-person classes.

As a result, students were more willing to comply and learn through limited in-person classes because they are gaining a lot of knowledge and have a clear understanding of the lesson if it's happening inside the classroom, not just with the use of technology. This paper also revealed that of all the variables in terms of challenges mentioned in the study, students are most challenged by limited in-person classes in terms of transportation expenses. Since the pandemic and lockdowns were implemented, transportation fares have increased making it difficult for students to attend limited in-person classes due to lack of financial support. With these findings, the researchers proposed an action plan that students can use as a guide in overcoming these difficulties. The findings of this study concluded that limited in-person classes are one of the best approaches, particularly for higher education institutions, to implement in providing quality education in the new normal setting. On this basis, the concept of face-to-face learning can be limitedly implemented in every higher educational institution with the advantages it can offer students in addition to virtual learning, and they can also minimize the challenges the students may face from it because they will be aware of what is difficult for the students more.

LEVEL OF AWARENESS ON CRYPTOCURRENCY AMONG SMALL AND MEDIUM BUSINESS OWNERS IN PILA, LAGUNA

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ABSTRACT

Cryptocurrency is a form of digital currency that is designed to operate as a medium of exchange through a computer network. It does not

rely on any central authority, such as a government or bank, to uphold or maintain it. As the popularity of cryptocurrency grows among individuals and businesses, the researchers conducted this study. This research aims to determine the level of awareness on cryptocurrency among small and medium business owners. It presents a wide range of importance which runs from the small and medium-sized enterprises and future researchers. To obtain data and information, the research sought to assess the profile of the respondents, extent of respondents' level of awareness in terms of Financial Aspects, Types of Cryptocurrencies, and Economic aspects and the significant difference between the demographic profile and the level of respondents' awareness on cryptocurrency.

The research design used is quantitative research through surveys or questionnaire. The population of the study is 80 business owners in Pila, Laguna, and the sample size was determined using the Slovin's formula. A questionnaire with closed-ended questions was used as the research instrument designed to collect data in order to assess respondents' views and opinions on cryptocurrency. The treatment of data includes the use of the mean (\bar{x}) and standard deviation to calculate the central tendency and measure of variability, respectively. The F Test Formula is also used to determine the significance of differences between two groups of data.

The findings of the study regarding the financial aspects of knowledge have an overall mean of 2.43, Skills have a mean of 2.27, and Attitude has a mean of 2.50, all of which are interpreted as Less Aware. This simply indicates that the respondents lack knowledge and a thorough understanding of the benefits of cryptocurrency to financial aspects of business. Bitcoin has an overall mean of 2.21, Ethereum has a mean of 1.87, and Tether has a mean of 1.86, all of which are interpreted as Less Aware. This simply shows that the respondents' level of familiarity with and comprehension of cryptocurrencies—specifically, bitcoin, Ethereum, and tether—and their advantages for business finances is lacking. The overall mean for economic aspects in terms of investment opportunities is 2.50, and the mean for Alternative Banking System is 2.34, all of which are interpreted as Less Aware. This merely shows that the respondents' level of economic knowledge and comprehension of cryptocurrencies is falling short.

The majority of respondents are over the age of 41, mostly female, have completed high school, and fall into the low-middle income category.

However, the respondents have a low level of awareness about Financial Aspects, Cryptocurrency Types, and Economic Aspects. Among the related aspects, types of cryptocurrency perceive the highest indicator to test the level of awareness of respondents on cryptocurrency. In conclusion, there is a significant difference between the demographic profile and the related aspects about cryptocurrency to the awareness of small and medium business owners in Pila, Laguna.

LEVEL OF PREPAREDNESS OF BSA GRADUATING STUDENTS TO CPALE

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ABSTRACT

Accountancy is usually regarded as one of the most difficult academic programs. A Bachelor's Degree in Accounting is required, followed by passing the CPA Licensure Examination, to become a Certified Public Accountant (CPA). The research entitled "Level of Preparedness of BSA Graduating Students to CPALE" aimed to determine the relationship between the respondents' demographic profile and the factors affecting the level of preparedness to CPALE. The paper sought to identify the demographic profile of students in terms of age, sex, school affiliation, and general weighted average (GWA), as well as to what extent do the academic, personal, physical, and socio-economic factors affect the level of preparedness to take the CPALE. To test the research hypothesis, the questionnaire was distributed to students, specifically all graduating Bachelor of Science in Accountancy students at Laguna University, STI College, and Union College, via google forms and survey-questionnaire, with their permission. The responses were analyzed using Slovin's formula, with a 5% margin of error and a 95% level of confidence, yielding a sample size of 91 out of a population of 117. The evaluated results with the variables stated in the paper appear to show that

the respondents' demographic profile has no relationship to the factors affecting the level of preparedness to CPALE. As a result, students' demographic profile has no effect on academic achievement, learning environment, or parental involvement because it does not contribute to student failure or success. With these findings, the researchers proposed an action plan for universities and students to consider as they prepare for CPALE. Most of the respondents are under the age of 21 and the majority of them are female. Their general weighted average ranges from 2.26-2.50 (81-84%) and most of them also study at Laguna University. In regards to the factors influencing the level of preparedness to CPALE in terms of academic factor, personal factor, physical factor, and socio-economic factor, the personal factor is the highest indicator, whereas, the least indicator is the physical factor. This paper revealed that, of all the variables affecting the level of preparedness for CPALE, personal factors that includes attitude and study habits are the most significant indicators of progress and academic success.

EFFECTIVENESS OF LEARNING MODULES TO THE ACADEMIC PERFORMANCE OF ACCOUNTANT STUDENTS AT LAGUNA UNIVERSITY

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ABSTRACT

The COVID-19 epidemic has caused the largest disturbance in educational history, affecting students and instructors across the world. This epidemic had an impact on many sectors of society, including education. To continue the teaching-learning process amidst the restrictions to conduct face-to-face classes, the Laguna University (LU) has been implementing the Seamless Blended Digital Learning Program (SBDLP) since the Summer Term 2020 until at present. One of the side effects of the sudden transmission to online learning because of this pandemic is the influence on students' performance. It is essential to evaluate student views and preferences and how the learning module setting affects their academic performance. This led the researchers to determine the level of effectiveness of learning modules of

the financial accounting and reporting courses and level of academic performance of accountancy students at Laguna University. It seeks to answer the following questions; (1) What is the level of effectiveness of learning modules of financial accounting and reporting courses as assessed by the BSA students in terms of module content, and module learning activities?, (2) What is the level of the academic performance in the financial accounting and reporting courses as assessed by the BSA students?, (3) Is there a significant difference with the level of effectiveness of learning modules when grouped according to the financial accounting and reporting courses?, (4) Is there a significant relationship between the level of effectiveness of learning modules and level of academic performance in financial accounting and reporting courses?, and (5) What courses of action can be proposed according to the research findings? This study is believed to be significant for the BSA students, school, policy, practice, community, and future researchers.

The researchers decided to administer the primary data as the main source from a google form survey, and the questionnaires were used to collect information. Eighty-three (83) third year BSA students were selected using the total population sampling technique that is a type of purposive sampling technique in which involves the entire population.

For the results and discussions, the null hypothesis stating that “There is no significant difference between the level of effectiveness of learning materials when grouped according to the financial accounting and reporting subjects” is true. Based on the data, it also showed that the null hypothesis stating that “There is no significant relationship between the level of effectiveness of learning modules and level of academic performance in financial accounting and reporting subjects” is true.

Therefore, this study was hereby concluded that the level of effectiveness of learning modules of financial accounting and reporting courses as assessed by the BSA students in terms of module content has a remark of effective and was verbally interpreted as high. That in terms module learning activities, has a remark of effective and was verbally interpreted as high. That the level of academic performance in the financial accounting and reporting courses as assessed by the BSA Students was remarked Average and was verbally interpreted as Average.

FACTORS CONSIDERED IN USING ACCOUNTING SOFTWARE AMONG SELECTED SMEs IN STA. CRUZ LAGUNA

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Jenny A. Rondola

ABSTRACT

This study aimed to determine the factors considered in using Accounting Software among selected SMEs in Santa Cruz Laguna. Computerized Accounting Software is a widely used accounting software application that integrates all of a small business's normal physical operational activities to help with the processing and generation of financial data such as the comprehensive income statement, the statement of financial position, accounts receivable schedules for debt collection, inventory management, sales analysis, all types of tax returns, and payroll for employee salaries. The research study made a descriptive method of research which employed descriptive and correlational research design. The study was conducted to have a deeper understanding on factors to considered in using accounting software among selected SMEs in Sta. Cruz Laguna. Primary data was collected by using the operational questionnaire. In addition, to interpret the data, the researchers used percentages and frequency counts and mean using a 4 point likert scale. The results of the study led to the conclusion that POS are the most used software by the SMEs that enables business owners to maintain a finger on the financial pulse of their organization and assists organizations in putting together financial statements like profit and loss reports and balance sheets. In the light of the foregoing findings, the researchers recommended that SMEs must try to use computerized accounting software since its viewed to be very effective, in order adapt technology and take advantage of its availability to enhance the operation of their business and to cope with the modern era.

BENEFITS AND RISKS OF CONTACTLESS PAYMENTS ASSESSMENT BY THE CONSUMERS AND SUPERMARKET IN STA CRUZ LAGUNA

By: Justin Angelo D. Alejandro
Cyndel A. Alfonso
Patrice L. Oliveros
Ken Mark P. Ramirez
Reina P. Rodejo

ABSTRACT

Recent innovative payment methods such as contactless payment have attempted to imitate the attractive characteristics of cash. Contactless payment systems are cashless payments that do not involve physical interaction between the devices used in consumer payment and POS terminals by the merchant. This method of payment is utilized in some business establishments. Contactless payment solutions that are becoming more widely used are digital wallets such as GCash, Pay Maya. Significance of the study aims to give the readers a deeper understanding and to make them reassess their transaction process to oversee the pros and cons about using the contactless payments. Statement of the Problem and Objectives are the following: 1.) What is the assessment level of benefits in contactless payment among owners and consumers in terms of Ease of use; Safer Transactions; Flexibility of payment devices; and Loyalty benefits? 2.) What is the assessment level of risks in contactless payment among owners and consumers in terms of Low Transaction Limit; Limited Acceptance; Technical Limitations; and Security Concerns? 3.) Is there a significant difference between owners and consumers' assessment level of benefits in contactless payment among owners and consumers? 4.) Is there a significant difference between owners and consumers' assessment level of risks in contactless payment among owners and consumers?

The research design of the study was descriptive in design due to the essence of its basic structure in dealing with a situation that demands the technique of observation as the principal means of collecting the data. The research locale was conducted in Santa Cruz, a first-class municipality in the province of Laguna. In fact, there are 3,710 business establishments in Sta. Cruz, Laguna and twenty-seven (27) are supermarkets. The study focuses on the twenty-five (25) supermarkets that utilize contactless payment and twenty-five (25) consumers who use contactless payment. The sampling

technique used in the population of the study was a purposive sampling to select participants for this study, which consisted of consumers and business owners who use contactless payment in Santa Cruz, Laguna. In the research instrument of the study the researcher created a Likert-scale type of questionnaire. The draft of the questionnaire was made in accordance with the statement of the problem and objectives. The results of the collected copies of questionnaires were tabulated and analyzed. The data were treated statistically using mean, standard deviation, and t-test for two independent samples, through the proper statistical treatment in accordance with the statement of the problem.

The results indicate that the benefits of contactless payment assessed by the owners and consumers are at a very great extent while the risks of contactless payment are only at a limited extent. It is therefore concluded that there is no significant difference between owners and consumers' assessment level of benefits in contactless payment among owners and consumers in terms of ease of use, safer transactions, flexibility of payment devices and loyalty benefits as perceived by the respondents. Meanwhile, there is a significant difference between owners and consumers' assessment level of risks in contactless payment among owners and consumers in terms of low transaction limit, limited acceptance, technical limitations, and security concerns as perceived by the respondents.

FEASIBILITY STUDY OF BELLIZZI APPAREL STORE BUSINESS IN SOCIAL MEDIA PLATFORMS AND BRGY. MASAPANG, VICTORIA, LAGUNA

By: Keith Queensie R. Arrieta
Nichole Jane Oca
Reymart Vhal C. Ollivo
Erjhon S. Paylado
Trisha Rose A. Pescana

Project Background

The study titled "The Feasibility Study of Bellizzi Apparel Store Business" examines a business proposal by five proponents, whose names are Arrieta, Keith Queensie R., Oca, Nichole Jane., Olivo, Reymart Vhal C., Pescaña, Trisha Rose M. The study cites data from Sustainability Solutions Exchange (2022) that reveals a significant portion of Filipinos dispose of clothing after a single use, and millennials are buying more than half of their

clothes each year. Bellizzi Apparel aims to address this problem by producing unique designs in limited quantities, in contrast to the wasteful fast-fashion industry. The business aims to eliminate outdated clothing stereotypes and enhance existing products through innovation.

Organizational and Management Study

The study concludes that the best approach for establishing the Bellizzi Apparel Store Business is a limited partnership with a participative management style. This approach assigns responsibility and decision-making authority to each partner, and a formal agreement outlines the partnership structure. The study also notes that each proponent will contribute 20% of the capital, or Php 2,000.00 worth of shares, in the company. The study evaluates the effectiveness of the proposed organizational structure and the qualifications of the individuals who will make up the organization, and finds that each proponent has a significant role to play in the growth and success of the business.

Marketing Study

The proposed enterprise, Bellizzi Apparel, aims to target consumers in the community of Brgy Poblacion, Santa Cruz, Laguna, with plans to launch on September 19, 2022. In order to successfully produce and promote their products, the proponents have developed a solid business strategy that includes utilizing the company name in the logo as a form of marketing and promoting consumer awareness. Additionally, as a new product, Bellizzi Apparel will utilize the four marketing mix components of price, place, product, and promotion to advertise the product, much like other businesses. To enhance the reach of their promotions, the company will also take advantage of social media platforms like Facebook, Instagram and TikTok to create public advertising.

Technical Study

The technical study includes detailed information about the product offered by Bellizzi Apparel, its pricing, the production process and flow, the layout of the production floor plan, the work schedule, and the necessary tools and equipment with a total cost of Php 12,323. The study also includes the cost of cleaning supplies amounting to Php. 388, as well as the cost for rent which is Php 4,000 and the utilities such as water, electricity, and internet which is Php 5,952.50 and the overall computation of costs for the first nine months of operations.

Financial Study

Bellizzi Apparel with an initial investment of Php 10,000 split evenly among the proponents. Over a 9-month period from September 2022 to May 2023, the company has seen significant growth and improvement in its financial performance. The net profit/loss started low at ₱1,010.11 in the first month of operation but increases significantly to reach ₱12,638.04 by the last month of the operation, representing around 10% profit on the initial capital. The increase in operating revenues is due to an effective sales and marketing strategy and slight increase in prices for goods or services offered. The key component of this study is the Return of Investment (ROI), which increased from 10% in September to 34% in May, indicating that the company was able to generate more revenue from their investments over time. The decision to reinvest shares back into the business instead of withdrawing them also contributed to the increase of ROI over time. The profitability ratios also indicate that the business is managing expenses well and has good control over operational costs. The Gross Profit Margin ranges from 11% to 40% with an average of 29%, and the Profit Margin ranges from 11% to 40% with an average of 29%. The Break-Even Analysis shows that the business must sell 62.69 units or generate a revenue of ₱6205.84 to reach the break-even point. The Sensitivity Analysis shows that a decrease in projected sales volume by 6%, 10%, 15%, and 20% respectively, will have a potential impact on the business's net profit. The Payback Period for the recent investment is relatively short at 3 months, highlighting the potential for a quick return on investment.

Socio Economic Study

The projected Bellizzi Apparel Store business in Ukay-ukay and its socioeconomic effects are discussed in this chapter. The store will offer reasonably priced, fashionable clothing that meets client needs, as well as opening up employment possibilities for locals and boosting the local economy. By paying taxes and contributing to the growth of the neighborhood, the company will also uphold its civic obligation. Yet, the business's environmental impact must be taken into account, especially in light of internet consumption and the use of detergents and bleaches while washing clothes. The environmental impact of the company can be minimized by switching to renewable energy sources and environmentally friendly detergents.

Conclusions and Recommendations

For the Bellizzi Apparel company, this chapter offers conclusions and suggestions in the areas of organizational and management, marketing, socioeconomic contribution, and finances. Although the company has a strong foundation, it is advised to think about diversifying its product offerings, investigating online sales, putting customer loyalty programs in place, investing in marketing and advertising, enhancing customer service consistently, and assessing and improving the supply chain. The company should also increase the variety of its products to support emerging regional artists and take actions to lessen its environmental impact. In general, the company offers a promising investment prospect.

THE MARKETABILITY AND PROFITABILITY OF COMBOSOG IN BARANGAY SAN JUAN, KALAYAAN, LAGUNA

By: Lou Allen R. Adea
Chino Gabriel
Jann Owe Hiran
Erica Orno
Nheszete Ramos

Organization and Management Study

The proponents used democratic management style or participative management, they believe that when more people are able to offer an idea, thoughts or solution to a problem, it will lead to high levels of productivity, creativity, team engagement and a more collaborative. Team member are regularly asked for their input and opinions on decisions making to have a better output.

Market Study

The purpose of this study is to gather and evaluate data and regarding customer preferences for product and services. It will provide a review for a proposed development of food in Kalayaan, Laguna. This is to provide foods in affordable price. It will also describe what are the demand in the possible supply of the demand and the possible supply of the proposed product quantitative information which will reflect the status of the market in the area of business.

Technical Study

Technical study aspects of the proposed business including the Product description, Pricing, Production pricing, Waste disposal method. Technical study is an excellent opportunity for long term planning it also evaluates the details of how you intend to deliver a system or solution to the customers. Also, the supplies and list of machineries, tools and equipment are enumerated with their corresponding costs.

The proponents want to have a inexpensive price of the COMBOSOG that anyone want to try. Pricing method is exercised to adjust the cost of the producer's offering suitable to both the manufacturer and the customer.

The business located in Purok Sais Barangay San Juan, Kalayaan, Laguna it is near at the plaza, church and school that easily visible to the customer and there are only few competitors.

Financial Study

This chapter covers the entire system of monitoring and control of funds as it flows in and out of organization as assets and liabilities, profits and expenses. The proponents assume that the total estimated required capital investment is Php 10,000, which the money will return after 1 month of operation of the business. The business's gross net profit for the nine month duration of operation is Php 385,000.00. The break even point for COMBOSOG is 1000 servings or Php 20,000.00 a month, as seen in the table. The business return of investment of the business is 120% after nine months of service. In the first month of operation the pay back period is already covered because the initial amount in net profit is Php 15,000.00.00.

Socio-Economic Study

The socio-economic study shows the contribution of the study to the government and to the society. This area proves that the business existed not only for-profit purpose, but also for the improvement of the welfare of the people. The proponents aim to introduce a product to help the community, the proponents, LU community and the future researcher.

Conclusion and Recommendations

The study that we conducted, it helps us to grow and learn more about business. After bearing in mind the significant factors in the study that we conducted, like the financial, technical. Management, and socioeconomic study. It is therefore recommended that COMBOSOG will be establish and

succeed someday at the market of Barangay San Juan, Kalayaan Laguna. Always believe in yourself that you can do it.

**THE MARKETABILITY AND PROFITABILITY OF KAMOTE
MACAROONS IN BARANGAY PAGSAWITAN, STA. CRUZ, LAGUNA**

By: Julie Ann L. Escobal
Acel P. Martinez
John Kerby M. Reyes
Justine Denise M. Urbina
Shiela C. Zaide

Project Background

The title of the study is “The Marketability and Profitability of Kamote Macaroons in Barangay Pagsawitan, Sta. Cruz, Laguna” and the business name is “Mac’s-Corner.” It is located in Brgy. Pagsawitan, Sta. Cruz, Laguna. The project has five proponents which is all students of Laguna University taking up Bachelor of Science in Entrepreneurship namely: Julie Ann L. Escobal, Acel P. Martinez, John Kerby M. Reyes, Justine Denise M. Urbina and Shiela C. Zaide.

Organizational and Management Study

The form of ownership for the business proposal is general partnership. The type of ownership used is appropriate for the business. It denotes that the owners have an equal share of capital and earnings. A general partnership is an agreement between two or more people to split all of the assets, profits, and financial and legal obligations of a jointly owned business. In a general partnership, partners consent to unlimited responsibility, which means that debts are not subject to limits and may be settled with the assets of the owner. In addition, any partner could be held liable for the company's debts. A general partnership's partners can all make business choices on their own. This naturally demands confidence between partners, but you should organize and decide the distribution of work inside the organization ahead of time

The Proponents used management by objectives (MBO), also known as management by planning, to enhance an organization's performance by clearly outlining objectives that both management and employees agree on. It also aligns employees with their strengths, skills, and educational experiences and improves management-employee communication.

Marketing Study

The target market of Mac’s Corner is the residents of Brgy. Pagsawitan, Sta. Cruz, Laguna. The launching of Mac's Corner is anticipated around August 2022 or within the first few weeks of September 2022. Macs Corner will utilize marketing strategies by creating a social media page where customers can purchase their orders. Also, the information about Mac’s-Corner's product will be available on their social media pages for the convenient of its customers. Macs Corner will benefit from social media platforms such as Facebook and Instagram in terms of product promotion. They also create a logo for their business identity.

Technical Study

The technical study includes a floor plan layout, tools and equipment, rent expenditure, utility expense, office supply expense, and a work schedule in addition to the service flow process or suggested business operations.

Costs involved with labor and production will determine the price of each Mac's Corner Kamote Macaroon. Using a pricing strategy, the business ensures that the cost of its products is reasonable for both the consumer and the company. Pricing is established by the business's standard rates as well as the consumer's perception of an item's value in relation to the cost of the competitors' product.

Financial Study

Based on the financial statement analysis, the proposed business would require an initial investment of PHP 15,000 and a minimum payback time of 1 month. The study also shows an 830% Return on Investment (ROI). The proponents came to the conclusion that this study is feasible, profitable, and manageable.

Socio-Economic Study

Socio-economic study discusses the benefits of the proposed business and how the business affects the government, proponents, environment, community, and the future researchers. The proposed business may contribute to the government in the form of taxes through permits from BIR, DTI, and the local municipality; these payments will allow the government to address the needs of our community. Proponents have

developed and broadened their corporate management skills and recognize how this could serve as a stepping stone in enhancing their leadership, financial, operational, and marketing skills. In environmental aspect, the proposed business recycles materials, which supports the business in making sustainable choices that are beneficial to our environment. The LU Community will benefit by empowering aspiring students to improve their capabilities and pursue their full potential, which may be able to attract new students to join Laguna University's growing population. And for future researchers, this study will serve as a road map, providing them with ideas, data, as well as technological, financial, and marketing details.

CONCLUSION

The study showed that kamote could be utilized successfully to create macaroons when the exact amount of sweet potatoes and the other ingredients was used. The target market, which is in Brgy. Pagsawitan, Santa Cruz, Laguna and other local towns were extremely in touched of the business. Also, the study determined that Mac's-Corner Food Products Manufacturing was a successful enterprise that offers delectable macaroons at an affordable price.

RECOMMENDATIONS

Though operating a business is undoubtedly risky and challenging, it is preferable for aspiring entrepreneurs and business supporters to have a better plan in order to conduct an analysis of the target market, the community, the government, and all other people who stand to benefit from having a plan on how to start and operate a business is more effective in order to avoid the potential problem in financial aspects.

After a long feasibility study about producing Kamote macaroons, the proponents would like to suggest the following to individuals who are interested in starting a similar business:

1. The price of the product must be reasonable and fair to the market while ensuring the profit of the producers.
2. Ensure the good quality of products and maintain proper procedures. Learn to adapt to new technologies pertaining to food preparation of your products.

3. You can include the nutritional benefits of the product on your packaging as it helps the consumers to be informed on what they are purchasing. It will help them know how long the expiration date is.

4. Provide customers other variations of your products such as introducing new line of flavors and using various packaging styles such as bags, cartons or boxes.

5. Branch out more to nearby places for the development and growth of your brand.

COLLEGE OF ARTS AND SCIENCES

COMPARATIVE ANALYSIS OF MAINSTREAM TELEVISION PROGRAMS ON THE PRESENTATION OF FILIPINO SUPERSTITIOUS BELIEFS

By: Melchor D. Bueno
Ma. Shannen Joyce M. Condino
Sara Jane M. Montenegro

ABSTRACT

This study investigated how television mainstream media presents their content using its elements. It aimed to (1) assess how the following elements of mainstream television programs illustrate Filipino superstitious belief: plot, theme, duration, background music, cinematography, videography, and text; (2) investigate how the contents of Kapuso Mo, Jessica Soho and Rated K stimulate the interest of the viewers; (3) determine the responsibility of mainstream television media in presenting the Filipino superstitious beliefs; and (4) help content creators have a basis for making good films, documentaries, shows, etc., specifically in superstitious beliefs. A focus group discussion (FGD) was administered in this study with a purposive sample of ten participants who had a background in and were professionals in the field of mainstream media. The focus group discussion (FGD) was conducted separately for each of the chosen episodes from two different magazine television programs, Kapuso Mo Jessica Soho (KMJS) and Rated K, with the same theme. The findings revealed that each element of a television mainstream program had a significant impact on the audience depending on how it presented a specific episode. The researchers also concluded that television programs demonstrate their responsibility in shaping the

perception of viewers depending on how they showcase particular content. This study then argues that the use of different elements in mainstream television programs plays a crucial role in the presentation of Filipino superstitious beliefs. It is essential for content creators to be mindful of how they use these elements to present information and to consider the impact they may have on viewers.

PARENTS' INFORMATION-SEEKING BEHAVIOR AND PARENTING STYLE AMIDST 2022 KIDNAPPING TRENDS ON FACEBOOK

By: Danica G. Fajarito
Ned Ashley L. Oliveros
Marjorie L Velasco

ABSTRACT

The study aimed to address the information-seeking behavior and parenting style of selected parents in Barangay Wawa Lumban, Laguna amidst the 2022 kidnapping trends on Facebook. It specifically aimed to determine: (1) the level of parents' information-seeking behavior amidst 2022 kidnapping trends on Facebook in terms of (a) Passive and (b) Active; (2) the manifestation of parents' parenting style in terms of (a) Authoritarian, (b) Authoritative, (c) Permissive and (d) Neglectful; (3) the significant relationship between the level of parents' information-seeking behavior and their parenting style amidst 2022 kidnapping trends on Facebook; and (4) to craft a plan of action based on the findings of the study. The study employed a quantitative method and purposive sampling with 289 respondents from Barangay Wawa Lumban, Laguna. A printed as well as in Google Form survey questionnaires made by the researchers was used in the research instrument for the respondents.

The study's conclusion revealed that parents who are actively seeking information about the 2022 kidnapping trends on Facebook are aware on this kind of topic and influences their parenting style. However, passive parents often agreed that the 2022 kidnapping trends they saw on their Facebook account does not influence their parenting style. Moreover, active parents tend to be stricter and controlling and give additional rules to their children. In addition, parents' active information-seeking behavior amidst 2022 kidnapping trends on Facebook has a significant relationship to

their parenting style, while parents' passive information-seeking behavior has no such relationship. However, there is significant relationship between the level of parents' active information-seeking behavior in terms of active to the manifestation of parenting style in terms of authoritarian, authoritative, and neglectful and has no significant relationship with the permissive parenting style. Lastly, an action plan can be implemented to administer parents to increase their supervision for their child's safety. The researchers offered recommendations such as: (1) parents must still set rules for the safety of their children, (2) parents should also be aware handling their behavior by searching through trusted websites and social media platforms, (3) formulating new learnings, strategies, and assemblage help parents manage their information-seeking, (4) the proposed action plan may assist parents by imparting knowledge on how to support and guide their children, (5) Facebook should provide features that would facilitate information seeking, (6) parents should learn fact-checking and (7) Barangay Officials of Wawa Lumban, Laguna should implement information literacy programs.

STUDENTS' PERSPECTIVES ON SANGKAY JANJAN TV NEWS VLOGGING AND ABS-CBN NEWS: AN ANALYSIS

By: Jerrymie P. Bautista
Jimmuel O. Ramillete
Mahjaica L. Velasco

ABSTRACT

The study aimed to analyze the qualities of Sangkay Janjan TV's news vlogging to be an alternative to mainstream media. It specifically aimed to: analyze the qualities of news between news vlogging of Sangkay Janjan TV and ABS-CBN news in terms of: (1.1) Accuracy and credibility, and (1.2) Relevance and impact (2) To analyze the qualities of news delivery of Sangkay Janjan TV's news vlogging and ABS-CBN news in terms of: (2.1) Professionalism (2.2) Trainings (2.3) Code of ethics (3) To determine whether the news vlogging of Sangkay Janjan TV can serve as an alternative mainstream media. (4) To design an infographic (print and digital posters) that will promote the study's findings in general. This study employed qualitative techniques, using non-probability convenience sampling. The

research participants were second year, third year and fourth year B.A Communication students at Laguna University.

The findings revealed that all of the respondents believed that ABS-CBN news is accurate, credible, relevant, and has impacted them in their news broadcast. Sangkay Janjan, on the other hand, lacked all of the qualities that the ABS-CBN news possessed. The respondents believed that ABS-CBN Network is highly professional, demonstrates their skill in broadcasting, and showed that they're trained and is aware of the code of ethics while Sangkay Janjan TV did not show any of these specific qualities.

From these findings, several conclusions and recommendations were drawn. Sangkay Janjan TV's news vlogging cannot be considered an alternative for traditional media, therefore viewers looking for reliable, accurate news should turn to ABS-CBN news network instead. After analyzing the results of the study and the respondents' analysis, the researchers come up with an infographic that contains information promoting Traditional media as a legitimate source of news.

The researchers offered several recommendations based on the findings and one of these is that Laguna University may hold seminars on the rise of alternative news sites such as social media, websites, and blogs. It could help students in becoming aware of the digital era, in which traditional media is no longer the sole provider of news.

**ORGANIZATIONAL COMMUNICATION AND ITS EFFECT ON EMPLOYEE
SATISFACTION OF CAFES AND DINERS IN BRGY. BUBUKAL,
STA. CRUZ, LAGUNA**

By: Ramei L. Balajadia
Jennifer B. Maranan
Nicole S. Maranan

ABSTRACT

The study was carried out to determine how organizational communication works with the employee satisfaction of local cafes and diners. The objectives were to (1) determine the socio-demographics of the respondents - age, sex, job role, and monthly income; (2) assess the effect of the following organizational communication on the level of satisfaction of the respondents - downward, upward, and lateral communication flow, and (3)

test the significant relationship between organizational communication and employee satisfaction in selected cafes and diners in Brgy. Bubukal, and (4) develop an action plan to help manage employee satisfaction through organizational communication.

The study employed a quantitative approach for the data collection and analysis, and it also used a descriptive survey design. Data were obtained by the use of survey questionnaires. The participants included a total of 23 employees from selected cafes and diners from Brgy. Bubukal, Sta. Cruz, Laguna.

According to the data, there was a negligible correlation between socio- demographics and employee satisfaction. However, age and monthly income had a positive effect on employee satisfaction and sex had a negative effect. The main communication flow in the selected organizations was a downward communication. In testing the correlation between organizational communication and employee satisfaction using Pearson correlation, there was a significantly high positive correlation between the two variables.

The researchers proposed several recommendations to improve employee satisfaction and expand on the study: (1) the organization needs to have an effective in-person style of communication, aside from online communication to better develop the relationship between the management and the staff members; (2) the organization may focus more on the communication and relationship between management and staff. Proper and effective information dissemination is beneficial for both the management and the staff; (3) since the majority of use of communication is to disseminate updates, the organizations can keep track of the performance and compliance of the staff can help in understanding how they work and how to design an approach to help them improve; (4) the organizations can utilize Facebook and Messenger better while minding the ability of the older staff to adapt to them. The management can collect feedback from the staff regarding the most effective and convenient platform to use. Having a main platform for communication can lessen confusion and unsuccessful information transfers; (5) the significant relationship between organizational communication and employee satisfaction may serve as a basis for owners and management-level employees in developing new knowledge, techniques, and assembly for their businesses or organizations; (6) the action plan can be considered and used by owners and managers who seek to improve

organizational communication in their establishments and enhance employee performance and retention through satisfaction management; and, (7) for future researchers, they may partner with the local government for a more in-depth gathering of data, and the inclusion of interviews and other probing methods may deepen the analysis of the results of the study. Studies that explore the higher levels of the organization like manager satisfaction and customer satisfaction can also be explored. The study can also be applied to other industries aside from the food and service industry, and other barangays or municipalities as well.

DIGITAL JOB SEARCH BEHAVIOR AND TOOLS OF COMMUNICATION GRADUATES

By: Ynnalou M. Balababa
Princess Andrea G. David
Princess Diane C.

ABSTRACT

This study aimed to answer what are the digital job search behavior and tools that Laguna University BA Communication graduates find useful in job searching in order to provide classified guidelines in using digital job search tool for future job seekers. It specifically aimed to (1) determine the job search behavior of BAC alumni in seeking for job using digital job search tool; (2) determine the features of digital job search tool that selected BAC graduates used in job seeking.

Purposive and convenience sampling were used to choose the 7 participants from Laguna University BAC alumni. An in-depth one-on-one interview was conducted and the results were carefully analyzed using thematic analysis and are used to prepare the guidelines.

The finding revealed that salary and higher income holds the biggest factor on their behavior in job searching for BAC alumni. It was also determined that BAC alumni were able to land a job using digital job search tool. Moreover, the researchers came up with guidelines in using digital job search tool that will help not just Bachelor of Arts in Communication but also other Department in job searching.

Furthermore, it is recommended that (1) The Department of Communication may require students to have their own profile in digital job

search tool in preparation for their job searching after graduating, (2) The Laguna University officials, faculty, and staff could make use of the guidelines in using digital job search tool to prepare undergraduate in job searching. (3) Students of Laguna University can use digital job search tool to keep records of their achievements, commendations, trainings, seminars attended, etc. as credentials, (4) Future researchers, who would aspire to do the same kind of study, could explore more about additional feature of digital job search tool and the behavior plan of job seekers for wider understanding of how useful job search for job seekers.

AN ANALYSIS ON ENVIRONMENTAL COMMUNICATION CAMPAIGN STRATEGIES FOR PROPER GARBAGE DISPOSAL IN SITIO SAMPAGUITA

By: Audrey Marie E. Dave
Maegan L. Recide
Jady Ara D. Suazo

ABSTRACT

One of the most common problems in Sitio Sampaguita, Barangay Bubukal Santa Cruz, Laguna is the ineffective trash collection and a lack of communication strategies to engage residents in proper waste disposal. This study aimed to answer the question what is the information campaign that is being used in Sitio Sampaguita regarding garbage disposal, it specifically aimed to (1) identify the communication campaign strategies used by the Sitio Sampaguita community in disseminating information about garbage disposal; (2) determine the effectiveness of Facebook, Written material (e.g. signage) and word-of-mouth in disseminating information and (3) to provide an action plan to improve communication between the Barangay officials and residents of Sitio Sampaguita regarding Proper Garbage disposal. The theory of planned behavior Azjen was used as a reference through the progression of the study. The researchers used descriptive method in determining the level of effectiveness of communication campaign strategy used to disseminate information regarding proper garbage disposal in Sitio Sampaguita. Self-made questionnaires were given to 214 selected residents of the Sitio; This study revealed that the use of Facebook, written materials and word-of-mouth are effective in informing the residents of Sitio Sampaguita regarding proper garbage disposal and collection schedule. In conclusion, iii consistent

communication between Barangay official and residents is an important factor in improving their strategies in information dissemination. The researchers offered recommendation such as; (1) The Sitio Sampaguita community should continue to utilize multiple communication channels, such as FB, written campaigns and word of mouth to effectively disseminate information about proper garbage disposal practices. (2) They may also consider exploring additional communication channels, such as posters or radio announcements, to further reach and inform their target audience. (3) The community can consider using either or both campaign strategies depending on their available resources and target audience. (4) It is important to continuously evaluate and adapt their communication strategies most specifically in terms of timeliness, to ensure they are effectively reaching and educating their community members about proper garbage disposal practices. (5) The community leaders and stakeholders can collaborate and allocate resources to implement the proposed plan of action. Therefore, this study suggests that having seminars, regular meetings with the residents and developing a clear and concise timeline for the dissemination of information regarding the issue will help to resolve the problem.

ASSESEMENT OF VIDEO CONFERENCING SYSTEMS FEATURES

By: Al Bern Roy G. Sumaya
Genise P. Balanag
Angelica C. Pasco

ABSTRACT

The study was conducted to assess videoconferencing systems features. It was a quantitative method with 366 respondents who answered the questionnaire using a Likert scale. This study aimed to answer the question, "How do the features of videoconferencing tools contribute to student satisfaction in a virtual learning environment?" It specifically aimed to: 1) assess the existing videoconferencing features of a popular videoconferencing tool used by students; 2) identify the features of videoconferencing desired by students; and 3) propose a framework for enhancing videoconferencing features based on student perceptions.

In conclusion, schools and universities should place emphasis on enhancing the key features that hold the most significance for students. By

prioritizing students' needs and addressing their concerns, schools and universities can improve the video conferencing tool by incorporating additional features and enhancing its accessibility. This will result in a more effective and satisfying tool that better serves the needs of its students in the digital learning environment.

The researchers offered several recommendations based on the findings, such as: 1) Schools and universities may create a custom video conferencing tool with features such as a communication box, background change, feedback mechanism, file sharing, a communication box, multi-user conferencing, and screen casting. These features can enhance the functionality of the tool and create a more interactive and engaging online learning experience for students. 2) Students can use the video conferencing tool during synchronous classes, which can facilitate student engagement and lead to improved learning outcomes and student achievement in online classrooms. 3) Future researchers who would aspire to do the same kind of study could study the assessed video conferencing features required for the development of a conferencing tool and analyze the benefits and limitations of these features to inform further improvements in the tool's design and functionality.

AN ANALYSIS OF THE ATTITUDE OF LAGUNA UNIVERSITY STUDENTS UNDER BLENDED LEARNING

By: Cherry Anne Denise S. Dino
Paul John C. Lazaga
Rovic Ira C. Malate

ABSTRACT

Filipinos were among the most highly respected in terms of values and attitude. They were known for being kind, welcoming, and family-oriented. Unfortunately, this did not conceal the harmful habits and practices that seemed to be ingrained in the Filipino way of life. According to Inquirer.net, toxic Filipino culture might manifest itself through popular misunderstandings regarding basic issues. To avoid being biased towards the attitude that the researchers had analyzed, they conducted a pre-survey among the students of Laguna University, which contained the five toxic Filipino traits according to Savillo of Cebu Daily News Inquirer. However,

54.3% of pre-survey respondents from Laguna University had the *bahala na* attitude. Filipinos commonly say *bahala na* before beginning a tough task, such as taking an exam, delivering a report, being questioned, or making a choice.

The purpose of this study was to interpret how the *bahala na* attitude was practiced. It used a qualitative technique approved by experts, employing semi-structured interviews with open-ended questions. These methods assisted researchers in mapping out and explaining the richness and complexity of human behavior from several perspectives. The study's participants were college students from Laguna University. Purposive sampling, a non-random sampling method used to discover individuals in the community likely to have certain characteristics or experiences and who were willing to share them with researchers, was utilized in the study.

The findings identified that the definition of *bahala na* could be divided into three categories: positive, neutral, and negative. Laguna University students who employed the *bahala na* attitude in blended learning seemed to fall into four scenarios: workloads, decision-making, time constraints, and changes of environment. However, when researchers examined the use of this attitude in task compliance, they discovered that decision-making was not one of the four identified characteristics. The causes of the respondents' attitude, including time restrictions, laziness, and norms, could be attributed to two factors: the environment and oneself. Furthermore, using this attitude toward task compliance resulted in favorable, negative, and neutral consequences. The data on how the students avoided implementing this attitude towards assignment compliance were used to create infographics such as print and digital posters. The researchers created an infographic that included information on how to deal with the *bahala na* attitude in blended learning as observed by Laguna University students.

Based on the findings, the researchers offered several recommendations, including: (1) Laguna University may conduct seminars, programs, or any other activities related to raising awareness and addressing different students' attitudes towards task compliance in academic and personal settings. (2) Students at Laguna University can use the study and its infographics as a tool for reflecting on how to deal with the "bahala na" attitude and its impact on task compliance. (3) Future researchers who aspire to continue the study may explore other Filipino attitudes and consider other

profiles of the respondents, so that it is not limited to students only.

COMMUNICATION IN CHILDREN WITH AUTISM SPECTRUM DISORDER: A QUALITATIVE STUDY OF MOTHER'S PERSPECTIVES

By: Kathleen Faye J. Decena
Saralie B. Estrito
Mariane C. Mercado

ABSTRACT

Communication plays a crucial role in the lives of children with autism spectrum disorder (ASD), shaping their ability to express needs, engage socially, and establish connections with others. Understanding the perspectives of mothers is essential in uncovering valuable insights into the communication experiences of children with ASD. This qualitative study explores mothers' perspectives on communication in children with ASD, aiming (1) to describe the communication of children with autism; (2) to determine the strategies mothers used to promote their children's communication; (3) to determine mothers' expectations on their child's communication; and (4) to recommend a plan of action to the school that will improve the communication strategies of the mothers with their children with autism.

Purposive sampling was used to choose 13 mothers of children with ASD aged 6-12 years old. It is limited to mothers whose children are diagnosed with autism spectrum disorder. This study explored the communication strategies of mothers through the lens of Social Learning Theory. Semi-structured, in-depth interviews were conducted, and data analysis followed a thematic approach, with themes derived from the transcripts of the interviews.

The findings revealed that verbal communication, touch-based communication, and pointing as a means of communication for children with ASD. Mothers play a pivotal role in promoting their children's communication skills, utilizing a range of strategies tailored to their child's strengths and needs. These strategies encompass verbal input, augmentative and alternative communication, and linguistic mapping. The expectations mothers hold for their child's communication primarily revolve around the ability to express themselves effectively and establish connections with others. While

academic and intellectual advancement may not be the sole focus, the ability to adapt to the environment, overcome communication difficulties, and engage in socialization are key desired outcomes.

The researchers offered several recommendations based on the findings such as: (1) The Department of Education should develop training programs, increase funding for after-school programs, and collaborate with autism organizations to support communication interventions for children with ASD. (2) The Crisanto Guysayko Memorial Elementary School should extend school hours, organize inclusive events, and provide resources and training for staff to improve their understanding of ASD and effective communication strategies. (3) Mothers should attend training programs, use individualized interventions, and provide continuous support for their child's communication. (4) Future research should focus on communication abilities and challenges in children with ASD, intervention effectiveness, technology's role, and social and emotional outcomes of improved communication skills.

LIVED EXPERIENCES OF LAGUNA UNIVERSITY STUDENT– VLOGGERS; INPUT TO PROPOSED COMMUNICATION TRAINING

By: Sherwin C. Caballes
Kristia Love P. Mercado
Mary Grace C. Molon

The enhancement of literacy, as well as the capacity for thought and learning processes, is contingent upon the improvement of oral communication skills, interpersonal growth, and personality through vlogging. Hence, this study aims to understand the lived experiences of B.A. communication vloggers at Laguna University as an input to propose communication training.

This study was intended to understand the experiences of B.A. communication vloggers, which contributed to the input for communication skill training. It specifically aimed to: (1) describe vloggers lived experiences of how vloggers develop their communication skills through vlogging; (2) determine the difficulties vloggers encountered in their oral communication use when they started vlogging; and lastly, (3) understand the advantages of vlogging for communication in real life; and (4) propose communication training for communication skill enhancement. Qualitative research was used

in gathering and analyzing the data. Purposive sampling was also applied to choose the five participants for the study. Participants were then vloggers.

The B.A. Communication Department at Laguna University currently has its own channel on Youtube or Facebook. They were asked about their lived experiences as an input to propose communication training. The gathering of data was conducted through in-depth interviews, and the data were analyzed and interpreted using thematic analysis. The findings revealed that vloggers comprehend the importance of vlogging for the development of their communication skills. It emphasized their experiences in the use of preferred language, verbal elements for delivery, and the use and importance of confidence in vlogging. Researchers also identified the difficulties encountered by the vloggers in their vlogging careers, namely language barriers, difficulties in delivery, lack of confidence, communication struggles, and the advantages of vlogging over communication in real life. Lastly, research identified the application of vloggers' input to communication training as per the recommendations of the participants.

COMMUNICATIVE ACTION: PARTICIPATION OF THE YOUTH IN SANGGUNIANG KABATAAN PROJECT OF SITIO SAMPAGUITA, SANTA CRUZ LAGUNA

By: Joshua Consebido
Jaylene P. Manalo
Lalaine P. Omerez

Participation is seen as people taking part in creating social objects that emerge in the complex social processes of everyday organizational life. In social terms, it means having the freedom to fully engage in all facets of communal life regardless of race, gender, color, or religion. By giving the youth a voice, they can grow up to become better adults in society. Giving young people a place in decision-making builds a broader base of citizen involvement and creates stronger, more inclusive communities. Youth empowerment has become a popular approach to creating effective programs and policies for youth, helping them develop leadership skills, self-esteem, and positive attachments to their communities.

The purpose of this study is to examine youth participation in the Sangguniang Kabataan project in Sitio Sampaguita, Santa Cruz, Laguna. The

study utilizes a survey in the form of a questionnaire. The survey consists of different parts: the first part collects the respondents' profile information such as name, gender, and age, while the second part assesses the level of youth participation in areas such as community service, health initiatives, and team building. The survey aims to measure the perception of youth participation in the Sangguniang Kabataan project in Sitio Sampaguita, Santa Cruz, Laguna.

This research study employs a quantitative design, specifically a descriptive survey design, which accurately depicts the participants. It emphasizes objective measurement and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. The researchers utilize this research design to determine the extent of youth participation in the Sangguniang Kabataan project in Sitio Sampaguita, Santa Cruz, Laguna.

PERCEPTIONS ON THE GENDER EXPRESSIONS OF LAGUNA UNIVERSITY STUDENTS INSIDE THE CAMPUS

By: Mariela Vianca A. Del Mundo
Kenneth E. Mendoza
Paul Albert A. Patanao

ABSTRACT

In recent years, students on campuses across the country have become increasingly vocal in resisting binary thinking with respect to gender identity and expression. Three of the four top universities in the Philippines do not require their students to wear their uniforms. Schools that do not require their students to wear a uniform promote an environment with freedom for expression. This study intended to answer what are the perceptions of Laguna University students on gender expressions, specifically inside a campus that implements rigid policies that aligns with gender norms.

Qualitative research method was used in gathering and analyzing data. Purposive sampling technique was used to choose the respondents. The participants were students from each of the departments; College of Arts and Sciences, College of Business Administration and Accountancy, College of Education, College of Computer Studies, College of Engineering, College of

Health Sciences, and Senior High School. This study was driven by Chickering's Theory that claims that during students' time at college, their identity develops through many stages. Semi-structured in-depth interviews were conducted and its results were studied using thematic analysis.

The findings revealed that (1) the students of Laguna University perceive gender expressions as a way of communicating one's gender identity to the society and how a person publicly expresses or presents their gender. This can include behavior and outward appearance such as dress, hair, make-up, language and body language. However, it is an expression that one cannot fully practice inside the campus because of its policies, and (2) the existing policies of Laguna University regarding physical appearance such as grooming in terms of hairstyles, clothing, and makeup implements rigid gender norms that makes it difficult for students to practice their desired gender expressions particularly for those who are part of the LGBTQIA+ Community. (3) The gender expressions of Laguna University students are hardly ever observed because it is not really welcome inside the campus. Lastly, (4) There are various ways of expressing one's gender, and through these expressions, it gives satisfaction and comfort for those who wish to express themselves freely. It also shows support and acceptance of every gender, particularly to those who are part of the LGBTQIA+ Community.

The researchers offered several recommendations based on the finding such as: (1) Laguna University should be more open for discussions regarding Sexual Orientation, Gender Identity and Expression (SOGIE) and acknowledge that it is a social concept that is constantly developing, therefore, must adapt and spread more awareness on its students by conducting seminars, or any other related activity that supports this matter, and (2) the institution and its students can use the proposed plan of action as a reference for further emphasis on this matter to reach a better compromise that will improve the university's inclusivity and admission and will benefit students' wellness, comfort, and happiness, and lastly, (3) For future researchers, they could explore a more in-depth study about gender identities and representations as well as their preferred gender expressions. It is recommended that a different tool and plan be developed based on the results of the study that will serve as another instrument for recommendation for the development of other organizations or institutions.

**A COMPARATIVE ANALYSIS OF MULTIMEDIA SKILLS OF COED, COENG, CBAA,
AND BAC: BASIS FOR PROPOSED WEBINAR PROGRAM**

By: Hanna Mariz M. Reyes
Venez Q. Austriaco
April S. Mones

ABSTRACT

This study investigates the comparative analysis of multimedia skills of four colleges in Laguna University namely, COED, COENG, CBAA, and BAC. The research mainly focuses on six (6) sub-problems: the demographic profile of the respondents, the used platforms, level of multimedia skills, significant relationship between the demographic profile and the level of multimedia skills, significant relationship between the used platforms and multimedia skills, and develop a webinar program proposal based from the results and findings. Descriptive correlational research design was used and a total of 160 students were purposively selected. Findings revealed that all four colleges displayed high level of confidence in terms of creating content, technical skills, and language skills. There was no significant relationship between the demographic profile of the respondents in terms of age, and course, but with the Chi square of 5.584 and a .018125 p-value, it was found out that there was a significant relationship between the demographic profile of the respondents in terms of sex and language skills among the College of Engineering male students. In addition, there was no significant relationship between the commonly used multimedia platforms and level of multimedia skills of the selected respondents among the four colleges. The null hypothesis stating that there is no significant relationship between the demographic profile and the level of multimedia skills of the selected respondents have been rejected on the table 13, and the researchers recommended to propose a webinar program for the female students of COENG to address the gap and make necessary assessment and evaluations about the effect of their demographic profile in terms of sex to their language skills.

**5RS AND ITS IMPACT ON BARANGAY SANTA LUCIA'S COMMUNITY
DEVELOPMENT PERCEPTIONS AND ATTITUDE**

By: Jammil C. Pineda
Mennard Amorante
Samantha Gwyneth A. Bonsol

ABSTRACT

5Rs (Refuse, Reduce, Reuse, Repurpose, and Recycle) should be used instead of the traditional 3Rs, and responsibilities should be given to each of the key players—business and industry, consumers, and the government—instead. The community residents and community itself will benefit through this. This study intended to answer what are the perceptions and attitude of the selected residents on Barangay Santa Lucia towards the application of 5Rs and its impact on their community development. It specifically aimed to: (1) Identify the perceptions, attitude, and practices of the selected residents of Barangay Santa Lucia in terms of performing the 5Rs strategy for the community development. (2) Determine the 5Rs' effectiveness in terms of raising awareness in Barangay Sta. Lucia in developing their community. (3) Proposed measures to sustain the application on the community development of Barangay Santa Lucia.

The researchers utilized qualitative research methodology to collect and analyze data. Purposive sampling was employed to select the participants, consisting of six community residents as key informant interview respondents, including two (2) teachers, (2) members of the Tricycle Operators and Drivers' Association (TODA), and two (2) barangay officials. For focus group discussions, the researchers purposively selected fourteen (14) students and fourteen (14) adults, resulting in a total of 34 respondents. The results showed that community leaders and key residents were aware of the 5Rs application and shared their knowledge through seminars and discussions. However, some respondents were not informed about the issue. Effective solid waste management initiatives, such as sessions and seminars, were therefore necessary to educate the community members. The findings also revealed a positive attitude towards the 5Rs application among the respondents from the key informant interview and focus group discussion. In terms of practices, most of the participants in the key informant interview were using the 5Rs method, while in the focus group discussion, respondents were not practicing proper waste disposal through the application, instead,

using different techniques to dispose their waste.

The researchers offered several recommendations based on the findings such as: (1) To educate the residents of a Barangay on effective waste management, community leaders should organize formal discussions, seminars, and sessions. (2) Barangay Santa Lucia, Nagcarlan, Laguna should focus on promoting waste separation, reduction, reuse, repurposing, and recycling. (3) Community leaders and residents of Barangay Santa Lucia, Nagcarlan, Laguna should participate and support the program that the Barangay implemented for it to be successful and benefit the community and its residents. (4) The researchers put forward proposed measures and recognized the valuable perspectives shared by the participants regarding the continuity of implementing the 5Rs approach in promoting the community development of Barangay Santa Lucia, Nagcarlan, Laguna. (5) To enhance the credibility of their interpretations, it is recommended that they utilize a mixed-method research design that incorporates both qualitative and quantitative data.

A PHENOMENOLOGICAL STUDY ON ONLINE ADVOCACY ADVERTISING OF SELECTED GRAPHIC DESIGNERS

By: Don Rafael P. Sanchez
Geraldine G. Caco
Alianna Nicole P. Duran

ABSTRACT

Graphic designing can be an art to tell a message, inform an audience, be an entertainment piece, and also even advertise advocacies as one can see it. This study aims to analyze the lived experiences of graphic designers with social media advocacy advertising, to create a plan of action for optimizing their use of social media in engaging with advocacy advertising. It specifically aimed to (1) to find out why they are inclined to do advocacy advertising; (2) discover how graphic designers use design elements such as line, shape, color, texture, type, space, and value to make their graphic designs engaging for their target audience; (3) to analyze the theoretical factors of graphic designers.

The researchers used expert sampling to select eight respondents from social media with the required profession. The researcher performed

semi-structured in-depth interviews as well as observations from them. The researcher used thematic analysis to analyze the results.

The findings revealed that advocacy advertising designers do not have to conform to typical stereotypes. The phenomenon of advocacy advertising graphic design varies greatly depending on the perspectives of the chosen respondents. The findings also revealed that graphic designers utilize design elements subjectively. The theoretical factors show the designers' varying phenomena and themes that affect their overall design ability.

In conclusion, based on the findings that have been presented, (1) the respondent's reasons why they are inclined to do advocacy advertising are to spread awareness and personal satisfaction. (2) The design elements like impact, authenticity, relatability, interactivity, readability, bright colors, bold typography, and powerful imagery make their design engaging. (3) The theoretical factors that affect advocacy advertising graphic designers to create effective designs are (a) environmental factors such as social and cultural context, political climate, social justice, and client expectations, (b) behavioral factors such as design principles, digital tools, beyond skills and knowledge, and deep understanding of the issues and causes, and (c) cognitive factors such as attention, perception, memory, emotions, attitudes, social norms, and social influence.

The researchers offered several recommendations based on the findings, such as: (1) Upcoming graphic designers may consider also taking advocacy advertising whenever they deem it needed. (2) Use more visual imagery in the form of graphic designs and also add more depth to whatever advocacy is there to publish. (3) Engage in hands-on activities such as community outreach programs and charities to inspire advocacy advertising graphic designers and generate ideas for future projects in this genre.

LAGUNA UNIVERSITY BAC STUDENT'S COMMUNICATION STYLES ON POLITICAL CONTENT ON TWITTER

By: Marie Cris P. Acharon
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Angela G. Monderondo

ABSTRACT

The study was conducted to determine the effect of socio-demographic profiles on the communication styles of selected BAC Students on political content on Twitter. The four (4) specific objectives were: (1) to determine the socio-demographic profile of the study's respondents on the following: a. age b. gender and c. year level (2) To examine the communication styles of the selected BAC Students towards the political content on Twitter on the ff: a. Assertive b. passive, c. aggressive, and d. passive-aggressive. (3) To identify if there is a difference between the socio-demographic profile and Communication Styles of selected BAC students on political content on Twitter. (4) To develop a communication plan for non-assertive BAC students to become assertive communicators. Random sampling was used to choose the 104 respondents from BAC students enrolled at Laguna University. The chi-square test showed that Assertive and Passive communication styles had no significant difference in the communication styles of the BA Communication students, while aggressive and Passive-Aggressive had a sign on the communication styles of BA Communication students. Age, gender, and year level had no significant differences in the assertive and passive communication styles of BA Communication students on political content on Twitter. In contrast, Aggressive and Passive-Aggressive have a significant difference in the communication style of BA Communication students. The chi-square test showed that Assertive and Passive communication styles had no significant difference from the communication styles of the BA Communication students.

At the same time, there was a substantial difference between aggressive and Passive-Aggressive communication styles of BA Communication students. Based on the result, age, year level, and gender, they had no significant differences in the assertive and passive communication styles of BA Communication students on political content on Twitter. In contrast, Aggressive and Passiveiv Aggressive have a significant

difference in the communication style of BA Communication students. The researchers proposed several recommendations based on the findings: (1) Students should be mindful of the tone and language they use while communicating political content on Twitter. (2) The Laguna University officials, faculty, students, and staff may establish clear guidelines and policies for communicating political content on social media platforms like Twitter. (3) Department of Communication may conduct more seminars regarding assertive communication style when discussing political content on Twitter. (4) Future researchers may know their communication style when discussing political content on Twitter.

FACTORS ON DECISION-MAKING OF BAC STUDENTS IN PURCHASING ONLINE PRODUCTS

Angeline R. Biticon
Rica Mae P. Miguel
Mark Jan Ramos

ABSTRACT

This study aimed to answer how an online review affects customers' decisions when purchasing online products to come up with a proposed flow chart that will guide students in purchasing products online. It specifically aimed to: (1) identify what factors customers consider about the products when buying online; (2) analyze the influence of risk perception on buying online products; (3) analyze the role of consumer online reviews, and product type on decision-making in buying online products. Purposive sampling was used to choose 30 selected respondents from the Department of Communication enrolled at Laguna University. The researchers used a pre-survey form before the actual interview and a self-made questionnaire that was validated by an expert for the respondents to answer. After that the researchers conducted in-depth interviews with the key informants, focusing primarily on how online reviews affect decision-making in buying products online with them. The results were carefully analyzed using thematic analysis. Based on the findings of the research, BAC students take into account several factors when making purchases online, including online reviews, price, product ratings, quality, product description, payment options, shop ratings,

free shipping vouchers, customer service, photos of the product, shipping and return policies, number of buyers, trust, and brand. Additionally, it was found that consumers are likely to revisit online shops where they had a positive experience.

The researchers offered several recommendations based on the findings such as: 1) BA Communication students should make sure that they understand the product they are purchasing, including its features, specifications, and quality. Look for detailed product descriptions and photos and read customer reviews to get a sense of other people's experiences with the product. 2) Laguna University officials, faculty, and staff should start spreading information about purchasing online products by holding seminars with outside specialists and displaying the flowchart created by the researchers on each campus bulletin board. 3) Students at Laguna University should use the flow chart in decision-making in buying online products. 4) future researchers can examine the efficacy of measures taken to raise the standard of online reviews as well as how social media and other online content affect students' purchasing choices.

AIDA MODEL IN PAETE.TV: INPUT TO COMMUNICATION STRATEGY OF WOOD CARVING INDUSTRY IN PAETE, LAGUNA

Maricar P. Pagalanan
Rhona Mae M., Abulon,
Jesusa Jessa T. Dela Cruz

ABSTRACT

This study aimed to determine AIDA Model as a determinant in Paete.TV in providing better communication strategy to local Wood Carving Industry in the municipality of Paete, Laguna. The town is known as “The Carving Capital of the Philippines.” It specifically aimed to: (1) identify how do local wood carving entrepreneurs describe AIDA Model: (1.1) Attention; (1.2) Interest; (1.3) Desire; and (1.4) Action; (2) determine what do local entrepreneurs think about the use of Paete.TV; (3) recognize if there is a significant relationship between AIDA Model and Paete.TV as indicated by the communication strategy; and (4) come up a communication strategy to promote wood carving industry of the research locale through Paete.TV. Total enumeration sampling method was used to find the results of the study.

Participants were all registered woodcarving business owners in Paete, Laguna, with a total of twenty-eight (28) respondents. The research instrument is in the form of a survey questionnaire, which is divided into two (2) parts: (1) AIDA Model indicators and (2) Paete.TV. The gathering of data with the respondents was done with the guidance of the researchers. The study found that local wood carving entrepreneurs in Paete use the AIDA model to promote their products, including using social media to attract attention, attract clients, emphasizing the quality of their products to create desire, and seek potential investors to expand their business. Business owners also believed that Paete.TV could increase public awareness of the wood carving industry in Paete. Descriptive statistics were also used for both variable relationship which entails a closely intact data that assessed the overall population of the study to assess the overall population of the study and the audiovisual presentation (AVP) implemented by the researchers provide a positive feedback. The following treatment were employed and used Likert Scale to identify the total number of observations and weighted mean to determine the level of the AIDA model. In this study, the “Pearson r ” was used as the statistical tool to determine the relationship between AIDA Model and Paete.TV. Overall, the study concludes that the wood carving industry owners are knowledgeable in the use of AIDA (Attention, Interest, Desire and Action) model, using the suggested communication strategy on the use of Paete.TV is a suitable approach for the woodcarving industry in increasing awareness and able to produce communication strategy for wood carving industry in Paete, Laguna through an AVP uploaded via Paete.TV. The researchers offered several recommendations based on the findings. In general, having effective marketing materials that can be used to promote the woodcarving industry in Paete will aid in solving the problems encountered. We hope this will be a valuable data source for your future research. We are also hoping that this would serve as a reliable resource of data to help your future research study. To support the interpretations with descriptive data, it is recommended to use a quantitative research design.

**DOING ACADEMIC PAPERS USING GOOGLE TRANSLATE:
PERSPECTIVE OF LU STUDENTS**

By: Sofia Marie H. Guintu
Peniel P. Mabana

ABSTRACT

A tool called Google Translate is used to translate documents from one language to another. This study was conducted to know the perception of LU students in translating Filipino to English language using Google Translate. This study was intended to answer these objectives: (1) identify the perspective of LU students in translating Filipino to English language using Google Translate in doing academic papers; (2) Identify the problems LU students encounter when using Google Translate; and (3) craft a plan of action on the proper use of Google Translate. This study used qualitative research method. The respondents of the study were selected from Laguna University students. A total of thirty (30) random respondents who used Google Translate in their academic papers were chosen. Purposive sampling was used as the sampling design for this study. The findings revealed that majority of the participants focused on Google Translate's structure, usefulness, accuracy, and problems encountered. Most of them also had a positive experience in using Google Translate. They found the translator convenient to use and provided them with satisfactory results. Additionally, Google Translate helped them expand their vocabulary by discovering new terminologies. Respondents also mentioned that Google Translate was useful for translating other languages or for those who were not fluent enough to translate Filipino to English sentences. It can be concluded that Google Translate can be helpful in academic works, it is also useful in a way that you can use Google Translate offline and search for translations. This is a huge edge among the other machine translators as this favors the students especially if they need to translate words instantly. Moreover, it is essential to be aware of the limitations of the application, especially in terms of grammar and sentence structure. Students should still strive to learn the language and understand its nuances. The researcher also came up with a plan of action on the proper use of Google Translate.

**EXPLORING COMMUNICATION MEDIA USED BEFORE, DURING, AND AFTER
FLOODS IN BARANGAY SANTO ANGEL NORTE, SANTA CRUZ, LAGUNA: BASIS
FOR A COMMUNICATION PLAN**

By: Rosemae R. Miranda
Ma. Nicole C. Concejero
Raylyn S. Manuel

ABSTRACT

The communication of information with regard to disasters typically involves dissemination with the use of different communication media. Hence, this research explored the communication media used before, during, and after floods in Barangay Santo Angel Norte, Santa Cruz, Laguna. In conducting this study, the researchers identified the different communication media and assessed their roles and factors before, during, and after the flood that affect Barangay Santo Angel Norte residents. The study could provide a guide in creating or improving a crisis communication plan for the community. It specifically aimed to: (1) explore the communication media use of the Local Disaster Risk Reduction and Management teams, barangay officials, and residents of Santo Angel Norte with regard to information dissemination; (2) evaluate the timeliness, accuracy, and credibility of the communication media used to disseminate information by Local Disaster Risk Reduction and Management teams and barangay officials to Santo Angel Norte before, during, and after the flood; and (3) craft a proposed crisis communication plan that will guide the barangay officials and residents in handling catastrophes, specifically before, during, and after floods. The qualitative research method was used in gathering and analyzing data. Purposive sampling was also used to choose the eight (8) respondents. Participants were the residents and officials of Barangay Santo Angel Norte and the Local Disaster Risk Reduction and Management focal person. A semi-structured in-depth interview was conducted, and the results were analyzed using thematic analysis.

The findings revealed that officials and residents of barangay Santo Angel Norte are using both traditional media and new media before, during, and after floods. The use of both communication media, traditional and new media, remains preferable in spreading and gathering information during disasters. Furthermore, people are easily deceived and believe what they have read which is the reason for the rapid spread of misinformation. Based on the findings, the researchers offer several recommendations such as: (1)

The officials of Barangay Santo Angel Norte may provide effective communication media that will always be used during disasters and may be more open to receiving feedback from the residents for the improvement of their existing communication media. (2) The officials of barangay Santo Angel Norte may enhance their existing communication media and the development of new communication media. Furthermore, they may conduct seminars to avoid misinformation and consider using the proposed communication plan for an orderly community in times of floods. (3) Future researchers may explore other communication media and the development of software applications for disasters to lessen the impact brought by disasters.

RECEPTION ANALYSIS: QUEER'S SATISFACTION ON SELECTED PHILIPPINES LGBTQIA+ FILM PORTRAYALS IN PILA, LAGUNA

By: Jerson Polido
Nerime Mendiola
Ralph Edwin Pasahol

ABSTRACT

LGBTQIA+ characters are increasingly appearing in films; however, the representation is still being determined whether it is accurate or sufficient to represent the entirety of people. Hence, this research analyzed the queer satisfaction of LGBTQIA+ portrayals in the selected Philippine films *Baka Bukas*, *Die Beautiful*, and *The Third-Party* using reception analysis. It specifically aimed to: (1) enumerate the various ways in which LGBTQIA+ can be portrayed to satisfy viewers' discretion; (2) to determine audience reception satisfaction with the portrayal of gender in Philippine films. (3) to identify the relationship between audience satisfaction and gender portrayal in Philippine films. Qualitative and quantitative methods were used to gather and analyze data from queer participants in Barangay Linga, Pila Laguna. The respondents participated in semi-structured, in-depth interviews that were analyzed using thematic analysis. Based on this analysis there are three ways of LGBTQIA+ portrayals that can satisfy viewers; realistic portrayal, homosexual portraying homosexual, and role model portrayal. Although six of ten respondents felt satisfied with the portrayals according to their specific responses, these respondents also contradicted their previous answers which implicated that they are not fully satisfied since there are adverse reactions

pointing to the portrayals., As such, the Philippine film industries are still lacking in detailing the accurate representation of gender under the LGBTQIA+. Furthermore, two types of reception were identified based on the respondents which are dominant and negotiating. Gender portrayal and audience satisfaction have a significant relationship. As such films' gender portrayal is a major catalyst to draw out different satisfaction from the audiences. The researchers offered several recommendations based on the findings: (1) Filmmakers and the LGBTQIA+ community may work together when creating films that involve characters of LGBTQIA+. (2) The film industry may aim for gender parity to generate more positive satisfaction from the audience. (3) To further this study, the researchers recommend exploring the satisfaction of heterosexual groups with LGBTQIA+ portrayals. (4) Another method to explore this study is experimenting with a different approach or theory, such as queer theory.

RELIABILITY OF INFOGRAPHICS ON CIGARETTE BOXES OF SELECTED RESIDENTS IN VICTORIA, LAGUNA

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ABSTRACT

This research was conducted to explore the Reliability of Infographics on Cigarette Boxes of Selected Residents in Purok 2A, Brgy. Masapang, Victoria, Laguna. Specifically, it aimed (1) to identify how the health-related effects on cigarette boxes serve as a warning to the selected residents; (2) find out how the smokers deal with the warning graphic labels on cigarette boxes; (3) to discover the factors affecting the reliability of infographics on cigarette boxes; and (4) to conduct an awareness campaign in terms of smoking about the warning graphic labels on cigarette boxes. This study was conducted using qualitative method. Purposive sampling was used to choose the ten (10) smokers and ten (10) non-smokers regardless of their gender, age, religion, and annual income. It is limited to key informants of the community particularly the community leaders and community health workers. The researchers conducted structured in-depth interviews and its results were carefully analyzed using thematic analysis. The findings revealed that the infographics served as a warning to most participants and affects their

smoking consumption. The majority of the participants changed their smoking consumption after they noticed the infographics. The accuracy of infographics is the factor that made infographics reliable to most of the participants while some smokers thought the infographics were ineffective at educating people about the harmful effects of smoking on their health because of image type and addiction. Thus, this research concluded that (1) The infographics serve as a warning to the residents and affects the smoking consumption of the smokers. (2) Smokers notice infographics, and they changed their smoking consumption. It also appeared that some smokers recognized the warning graphic labels on cigarette boxes as a warning but made no change in their smoking consumption, while others just ignored it. (3) The accuracy of infographics is the factor that makes infographics reliable for smokers. (4) The researchers came up with an awareness campaign for the selected residents in the form of distribution of campaign materials about the warning graphic labels on cigarette boxes. Furthermore, it is recommended that (1) Purok 2A Barangay Masapang should put more focus on educating the locals on the significance of infographics on cigarette boxes. (2) Barangay Masapang may organize DOH representative-led seminars or activities that focus on the objectives of infographics presented in the awareness campaign. (3) Residents of Barangay Masapang should understand, analyze and share the campaign materials explaining the warning graphic labels on cigarette boxes. (4) Future researchers who would like to continue this study could investigate or conduct experimental research to find other methods for enhancing the effectiveness of infographics by changing the text and images used on cigarette boxes.

SEMIOTIC ANALYSIS ON KEVIN RAYMUNDO'S SELECTED WEBCOMICS IN PRESENTING SOCIO-POLITICAL CONTEXT IN THE PHILIPPINES

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ABSTRACT

This qualitative research study analyzed how Tarantadong Kalbo's webcomics respond to online criticisms of the Marcoses. The study used descriptive research and semiotic analysis to identify the elements present in

the webcomics and analyzed their meaning in socio-political context. The researcher asked 3 informants to analyze the 3 webcomics of Tarantadong Kalbo. The findings revealed that the webcomics utilized actual statements made by the Marcoses, but they were fabricated and misleading. The use of colors, font, shapes, objects, facial expression and image style conveyed the mood and satire effectively, and the webcomics were found to be a powerful tool for promoting media literacy and combating disinformation. The study concludes that webcomics can be a medium for addressing socio-political issues, promoting media literacy, and combating disinformation. The significance of the elements present in webcomics can develop critical thinking skills and identify disinformation, highlighting the importance of promoting media literacy to combat the spread of false information. From these findings, several conclusions were drawn. Semiotic analysis is a useful tool for examining the meaning of signs and symbols in webcomics another is the selected webcomics of Tarantadong Kalbo illustrate the disinformation propagated by the Marcoses and the importance of media literacy in combating the spread of false information and the use of webcomics as a tool for addressing socio-political issues can potentially promote media literacy and critical thinking.

TEENAGERS AND PARENTS' COMMUNICATIVE ASSOCIATION AMIDST DIGITAL TECHNOLOGY ADDICTION

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ABSTRACT

This research aimed to investigate the perceptions of teenagers and parents regarding their communicative association amidst digital technology addiction in Brgy. Pagsawitan, Santa Cruz Laguna. Specifically, the study focused on analyzing the extent of teenagers' and parents' views on non-verbal and verbal communication in relation to digital technology addiction. Furthermore, the research aimed to identify significant differences between teenagers and parents in their perceptions of communicative association. To achieve these objectives, a quantitative research approach was employed, utilizing a survey questionnaire to collect data from teenagers and parents in

the community. The questionnaire consisted of items that assessed the extent of communicative association, particularly in terms of non-verbal and verbal communication.

The findings of the study revealed varying perspectives on communicative association between teenagers and parents amidst digital technology addiction. It was observed that both groups had distinct views on non-verbal and verbal communication in the context of digital technology use. Additionally, significant differences were identified in the perceptions of communicative association between teenagers and parents. Based on these findings, the study proposed the development of an information booklet. This booklet aims to provide relevant information about digital technology addiction specific to Brgy. Pagsawitan, Santa Cruz, Laguna. The booklet serves as a tool to enhance communicative association between parents and teenagers, offering practical strategies and recommendations to foster healthy communication in the digital age.



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