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FOREWORD

The Eulogio “Amang” Rodriguez Institute of Science and Technology takes pride in publishing Volume XIX, No. 25, January – June 2019 of the EARIST Research Journal as it contributes to the attainment of EARIST’s Mission, Vision, Goals, and Objectives through scholarly publications.

This volume is the output of researches conducted by EARIST faculty during the Academic Year 2019. This volume highlighted Twenty-Four (24) distinct researches in different fields, but most noteworthy, each individual research achievement.

The topics vary as shown in every page, but each is full of diverse stories confirming happenings in every college of the Institute. The office of research hopes to mirror the activities of our educators in assuming their task as researchers.

There are more challenges left in the various fields waiting for further scrutiny. We continue the never ending cycle of the quest for new knowledge and further understanding of the issues at hand. The work remains unsolved. But unless we produce our own solutions to existing problems, the challenges will never be met.

The research work undertaken by faculty members and staff are included with the hope that these will contribute to the advancement of research activities of the institute and will serve as medium in the dissemination of research outputs to the community.

Engr. Rogelio T. Mamaradlo
Director, Research Services

TABLE OF CONTENTS


Technical
Research

DEVELOPMENT OF ELECTRICAL CONTROL TRAINING EQUIPMENT FOR DOMESTIC AIR-CONDITIONING TECHNOLOGY

Nacho B. Amac
Jordan A. Datu
Eldon Perez

INTRODUCTION

Several state colleges, universities and training centers in the country which are involve in offering technology course with different programs such as Heating, Ventilating, and Air-Conditiong/Refrigeration (HVAC/R), Automotive, Electronics and Electrical technology, follows the training regulation and standard by Technical Education and Skills Development Authority (TESDA). They may have the same highly competent instructors but they might differ in facilities set-up, training equipment and training delivery strategies. Mostly, the traditional way of training delivery has been used for the past years. The rapid technology advancement or the technological changes plays important role for the changes of training equipment and training delivery.

In recent years, the Heating, Ventilating, and Air-conditioning/Refrigeration technology (HVAC/R) sector, has been using traditional way to deliver technical training. This has been done in both vocational and bachelor degree courses. The traditional way is the kind of technical training wherein the actual unit of domestic air-conditioning has been used without any modification or innovations. Theoretical knowledge was delivered through lectures, and with the used white board, marker and visual ages. Nowadays, as the advancement of technology approaching and the K-12 program from the Department of Education has been implemented, the revision of curriculums, syllabus, training delivery and even enhancement or innovation of training equipment is highly required. Because of these demands, after revisions of curriculums and syllabus, it is now the right time to enhance, innovate or develop most advance training equipment. The training delivery also may be enhanced by using instructional videos and other electronic media rather than using traditional visual ages.

Developing advance training equipment should design perfectly within the time trend and industry demand. The very reason for equipment or learning simulator has to be design timely and advance, because it implies compatibility of the revised curriculum.

Research Paradigm

Figure 1. Paradigm of the Study

MATERIALS AND METHODS

Project Design

The Electrical Control Training Equipment for Domestic Air-Conditioning technology is design to acquire faster comprehension and skills development. All major electrical components are intentionally mounted on the unit based while other electrical components are mounted on the design wiring board. This equipment has a built – in circuit breaker that protects motor compressor fan motor and the whole control circuit for shorted connection. The control wiring board is in 45 degree inclination, which allows the trainee to connect wires easily on electrical component's terminals and in terminal block. Another additional feature of the project is its mobility. The unit is very handy and has a steel caster wheels, mounted on the four corners of the unit base. These features make the uniqueness of the training equipment as being compared to a traditional whole window type air – conditioning unit.

Another important feature of the project design is the activities that can perform by the students not just during skills development but also in the assessment process. These are the different types of single phase control connections, such as domestic air – conditioning controller using single capacitors, dual capacitor and capacitor start capacitor run motor CSCR). Terminal blocks have been installed for easy wiring connection. The selector switch and the thermostat have been installed in an easy access location to avoid delay during wiring exercises. This location also supports easy electrical troubleshooting and testing purposes.

Furthermore, the development of this training equipment can also be very useful in terms of accreditation requirement. It would be additional compliance of the laboratory enhancement and other purposes.

Project Drawing Plan

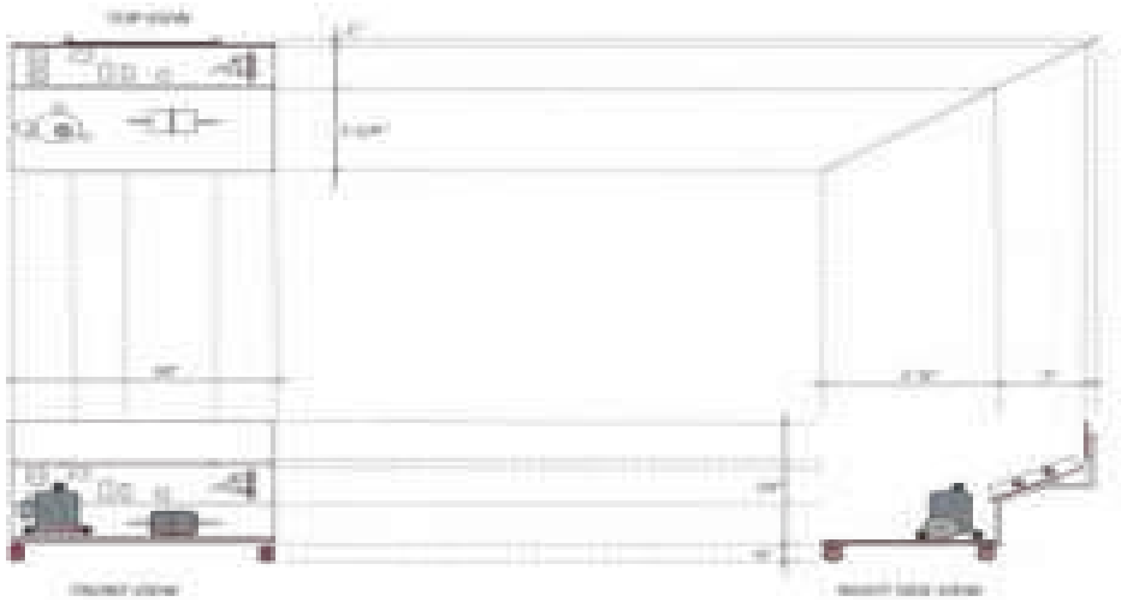

Figure 2: Project Drawing Plan Such As Dimension and Other Important Details

Materials and methods

Table 1a List of Required Materials:

Items	Specifications	Quantity
1.	Motor compressor 220VAC 1hp single phase	1 unit
2.	Fan Motor 220VAC 3 speed single phase	1 unit
3.	Angular bar	1”x1”x10’
4.	Welding rod e6011	1 kg.
5.	Primer Gray spray paint	2 cylinder
6.	Aluminum cladding	4’x4’x1/4”
7.	Starting capacitor 400vac 150uf	1 pc
8.	Run capacitor 40uf 370uf	1 pc
9	Fan capacitor	1 pc
10	Circuit breaker 15-20A single phase	1 pc
11.	Convenient outlet	1 pc
12.	Stranded wires 10m 3.0mm	10mtrs
13.	Terminal clips #22	100 pcs
14.	Bolt and nuts ½ “x3”	3 pcs
15.	Blind rivets 1/8”x1/2”	100 pcs
16.	Power cord	1 pc
17.	Steel caster 3” outside dia.	4 pcs
18.	Potential relay 220vac	1 pc
19.	Selector switch (rotary type 3 speed)	1 pc
20.	Thermostat cut – in at 25^{0}C cut – out at 16 ^{0}C	1 pc
21.	Miscellaneous such as metal screws, electrical tapes etc.	

Table 1 shows list of required materials.

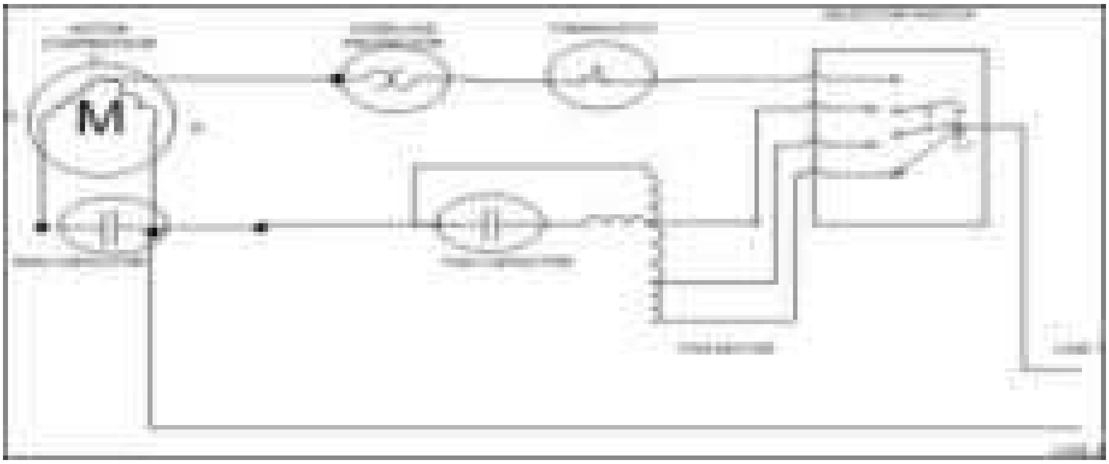

Figure 3. Domestic Air-Conditioning Wiring Diagram

Figure 3 shows single capacitor schematic diagram, one the connection that might be used in electrical wiring laboratory activities and competency assessment.

The unit base will be done by fabrication where application of mechanical works is important for the matter of accuracy. The fabrication includes mensuration, cutting, welding and drilling for bolt and nut holes. After fabrication, painting of primer epoxy will be applies to avoid corrosion. The mounting plate for the base, wiring board and for the unit name plate will be installed. All these activities will be based on the drawing plan per reference.

When the unit based is done, the required electrical components will install properly in a careful steps to minimize trial and error that might lead to major revision. Drilling of holes for motor compressor, fan motor mounting bracket, capacitor c- clamp holder, circuit breaker, convenient outlet, potential relay, selector switch and thermostat mounting plates. After drilling and all the holes are ready, the next the next steps are installations of all electrical components.

The motor compressor will installed on the left side of the base and the fan motor will mount on the center of the based board. The other electrical component such as capacitors, circuit breaker, convenient outlet, potential relays and the rest, will be the next for installation. When the installation of all electrical components is over, connections of electrical wiring will be executed.

Listing of motors resistance reading is required to identify electrical wire leads out. Thorough analysis is important to avoid motor burn outs and short circuits.

The electrical wiring connection will be done either single capacitor connection, dual capacitor or even CSCR – capacitor start capacitor run connection. When the wiring connection done, it will followed by test run and observation. During observation, operating parameters should be observed to assure unit efficiency and quality. When all these steps have been done, the project is ready to use by the end user.

The project has been evaluated through the use of evaluation criteria.

EVALUATION CRITERIA FOR HARDWARE MATERIALS

Instruction: Please evaluate the software material by using the given scale and placing a check mark (✓) under the corresponding numerical rating

Numerical Rating: 1 = Poor, 2 = Fair, 3 = Good, 4 = Very Good, 5 = Excellent

INDICATORS	5	4	3	2	1
A. Functionality					
1. Ease of operation					
2. Provision for comfort and convenience					
3. User-friendliness					
B. Reliability					
1. Conformance to desired result					
2. Absence of failures					
3. Accuracy in performance					
C. Stability					
1. Performs according to specifications					
2. Provision for security requirements					
3. Completeness of the system					

Summary:	Sum
a. Functionality	
b. Reliability	
c. Maintainability	
Total score:	

____

Signature over printed name

Evaluator

Results and Discussions

Figure 4: Shows the actual front view of the developed prototype for domestic air – conditioning training equipment.

Figure 4: Shows the actual right side view of the fully developed prototype for domestic air – conditioning technology

Table 2 Summary Table of the Assessment of the Two Groups of Respondents on the Level of the Acceptability of the Training Equipment for Domestic Air-Conditioning

CRITERIA	User		Expert		Composite Mean	
	M	VI	M	VI	M	VI
Functionality	4.14	HA	4.15	HA	4.06	HA
Reliability	4.03	HA	4.20	HA	4.11	HA
Stability	4.31	HA	4.20	HA	4.17	HA

Table 2 presents the summary of the assessment made by two groups of respondents on the level of acceptability of the project with regards to the domestic HVAC/R laboratory activities. The overall composite mean of the groups of respondents was 4.11 interpreted as highly acceptable.

CONCLUSIONS

Based on the finding of the study, the following conclusions were hereby drawn:

1. The project improves the delivery of training for domestic air – conditioning technology (electrical core competency)

2. The two groups of respondents assessed as highly acceptable in terms of Functionality, Reliability and Stability.

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INTERIOR DESIGN THROUGH UPCYCLING

Esmeralda W. Ayag

Introduction

The battle cry of everyone in this era is saving mother earth because our ozone layer is depleting. One way to serve mother earth is to recycle. There are two ways to recycle: upcycling and downcycling, but according to Szaky (2014) upcycling is much better than downcycling because in upcycling you are converting waste or used object into higher quality. Emgin (2012) ; Pol (2010) ; Santulli and Langella 2013); and Park and Kim (2014) said that upcycling provides reductions in environmental impact ;therefore contributes to environmental protection (Martin and Eklund, 2011; Ali, 2013; Martin and Parsapour, 2012; and Martin and Stott, 2011). The trend now a day is upcycling due to its lower cost. Consumers prefer to buy upcycled materials because it is much cheaper. In 2011, upcycling is the in thing and according to research the sales of upcycling increased to 400% (Slotegraaf,2012). In the Philippines, it is establishing its eco economy. In its one of its region they establishing greed city. Supermarkets are now using paper bag instead of plastic bags and they are also encouraging the costumers to buy eco bag instead of plastic bag.

The aim of this study is to introduce upcycling in interior design through product creation. because the researcher of this study is a proponent of upcycling. Also the proponent of this study is a practicing interior designer. Upcycling bicycle rim and pet bottle is the focus of the study. The study introduced upcycled product; therefore, it will reduce new raw materials and it will conserve natural resources. Instead of throwing them it will be used again. Aside from environmental benefit.

It's in upcycling there is economic benefit because the upcycled product will be sold.

Interior design is the science and art of planning, specifying, selecting, and organizing the surface finishes, treatment, color, and materials including furniture, furnishings, and fixtures and other interior design elements, items of decoration of the purpose of space allocations to suit, enhance and meet the intended functions, movement, and character for which the interior of the building is designed. In this study interior design focused on upcycled materials like, furniture, furnishings, and fixtures. RA 10350

There are lots of 21st century furniture, furnishing, and fixtures in the market but they are expensive. This study introduced a furniture, a furnishing, and a fixture which is made from bicycle rim. Since they were upcycled the designs are unique which are not available in the market. Waste materials if not used will contribute to greenhouse effect and if it used will contribute to economic and environmental disaster; therefore upcycling is the answer to reduce waste materials in becoming a pollutant.

Product Conceptualization. The proponent of the study looked for waste materials that are available in the surrounding while the proponent was looking around she noticed the tires, used wood , and pet bottles. She tried to conceptualize what product will be developed. Fist , the proponent thought of making a table out of the tires but there is no available glass for the table and the wood is too heavy for it to become a table. Second, the proponent thought of making the used wood a table but there were no available legs for the table. Finally the proponent of the study decides to make a chair. The used wood and the bicycle rim can be used to make a chair.

Product Design. The proponent of the study underwent different designs. First, the proponent was able to come up with the design of the bench . Second , the design of the terrarium, Lastly, the design of the chandelier.

The process of upcycling helped the interior designer produce innovative and inventive outcome because it makes the designer think out of the box. Conventionally, the designer will explore on the form or shape of the design but with upcycling it promotes other design process because you will consider the potential and the capabilities of the waste material that you are using. The designer who is also the proponent explored the existing materials and transformed it into a new product. In designing the product the creativity of the designer was enhanced. As the products were transformed; it offers new lease of life and functionality to it ; therefore, it offers new impact to the space itself.

Materials and Methods

The study employed developmental research design since it developed a new product- bench, chandelier , and terrarium from waste materials. Developmental research which pertains to instructional development that deals with the systematic study of designing, developing, and evaluating instructional programs was used to develop the upcycled products. Developmental Research has two types. Type 1 studies address product design, development and evaluation. Type 2 studies focus upon a given design, development, or evaluation model or process (Richey, Klein & Nelson, 2004). The Type 1 developmental research design was used in this study to develop a new product though upcycling.

The study is only limited on upcycling bicycle rim, pet bottles, and used wood to make a new product - bench, chandelier, terrarium. The study underwent four phases: Product Conceptualization; Product Design; Product Development; and Product Trial and Evaluation.

Below are the designs:

Figure 1. Design of chair made from used wood and bicycle rim

The concept is a BENCH using broken bicycle and old wood. This bench was developed out of waste materials like bicycle rim and solid wood door jamb. This bench is inspired by industrial design and it was painted with matte black. The size of the rim is 29 ‘ diameter.

Materials:

2 bicycle wheel

1 12’’x36’’x2’’ old wood

3 pcs 2’’x2’’x18’’ lumber

I pc. 1’’x 36’’ old tubular pipe

Bolts and nuts

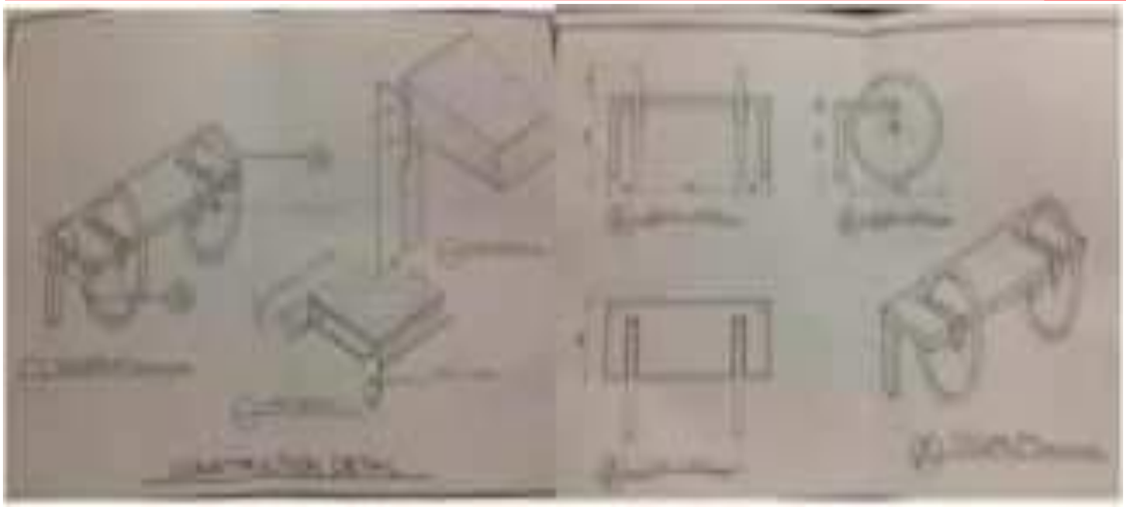

Figure 1. Working Drawings

Figure 2. Design of the a lighting fixture from used bicycle rim and glass bottles

The concept is a CHANDELIER using glass wine bottles. Lighting is a vital element in interior design not just it illumination but also its design. Having a unique and functional lighting fixture can be a focal point in a space.

Materials:

- 1 pc old bicycle wheel
- 12 pcs green glass wine bottles
- 12 pcs led 5 watts bulb
- 5 meters #10 electrical flat cord
- 1 pcs electrical plug
- 2 rolls electrical tape
- 2 m chain cord

Figure 3. Design of the terrarium from bicycle rim

This terrarium was made from an old wheel chair. Succulents are now getting famous as indoor plants and there is no other way to display it by putting them together to form a terrarium. It is a low maintenance plant and it can live in an artificial light.

Materials:

1 pc Wheel of Wheel Chair
4 pcs 1''x 30'' tubular steel
1pcs 32'' dia. ½'' plywood
1 pcs 32'' dia. 1/4'' clear glass
1 can gold spray paint
Asstd. cacti and succulents
Moss
Garden soil

Assorted cacti and succulents

RESULTS AND DISCUSSIONS

The following are the results of the study : the waste materials used in the study are the following : bicycle rim, used wood, and pet bottles; and the waste product were upcycled to chair, chandelier, and terrarium.

The study underwent four phases: Product Conceptualization; Product Design; Product Development; and Product Trial and Evaluation.

Product Trial and Evaluation. The developed product was used as interior design in the house. The product were tested and evaluated by the three interior designers and two experts on upcycling . *According to them they are a work of art and. They are functional and durable.*

As verbalized …

P1 : *I like the chandelier; it is a work of art.*

P2: The terrarium looks refreshing.

P3: The bench is unique.

P4: The chandelier is amazing!

P5: I love the terrarium; it reduces toxins in the air and brightens the room.

Figure 8. Interior design of the upcycled products

CONCLUSION

The proponent of the study was able to develop the following through upcycling : bench; chandelier; and terrarium from waste materials. The junk were waste that was turned into a new product which also provides environmental and economic value to the proponent of the study. In terms of interior design , the upcycled products give more personality to a space because of the creative piece. Interior design through upcycling makes the design distinctive and rare because the sentimental value will be transfer to a new form. The design becomes elegant and it offers aesthetic approach to an interior space. The bench , chandelier, and terrarium become a sculpture rather than a product because it shows how good the design of the product is as the form surpasses its real function , and it was achieved through upcycling design.

RECOMMENDATION

Teachers of interior design should incorporate the guidelines in design for sustainability and it should be the foundation of undergraduate design courses. Designers should create and make upcycling their lifestyle so that they can contribute to the protection of mother earth.

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EMERGENCY COMMUNICATION SYSTEM V.2.0 (EMERCOM V2)

Ronald B. Baral
Edmund S. Almazan

INTRODUCTION

An emergency communication system is a type of system that allows people or groups communicate during emergencies or disasters. A well-established communication system is essential during a disaster. In our country, the Philippines, a notoriously disaster-prone land in Asia has suffered from a boundless number of natural disasters in a single year, from volcano eruptions to earthquakes to landslides and tropical storms.

Communication is very important and it has been identified as one of the most important needs of a disaster affected country. One thing most individuals carry at all times is their smart phones. The development and growth of technology in the past years has dramatically changed the scenario providing more opportunities for the individuals to share information and connect with one another. Communication is substantial in everyone's day-to-day life but it also becomes crucial during and after a disaster.

Cell towers are dependent on electric power from a grid. If a disaster destructs power lines that supplies the electricity, a backup power system usually a backup battery or generator will run technology. This is a methodology and group of technology for the delivery of full-duplex voice communication and multimedia sessions over Internet Protocol (IP) networks.

Today, alternative power sources are making inroad. The project used a communication tower that can be run on solar power in urban, rural, and isolated areas. The use of solar energy is a fast turnkey solution; it will be established to deliver consistent power to the communication tower if electricity is unavailable. Solar power for telecommunication is an effective tool where it can be also used to reduce cost and have a safe and durable backup system compared to generator sets.

Microwave communication would be used in the proposed project. It is known as a form of “line of sight” communication, because there must be nothing obstructing the transmission of data between the communication towers for signals to be properly sent and received. The platform that would be used for the project is an open source VOIP application which is a communication engine that transforms the computing devices into powerful communication servers. The project would use VoIP (Voice Over Internet Protocol) information and communication in the event of an earthquake, or other natural disaster.

New technological innovations are developing and more mobile applications and digital platforms are being created. The applications installed on smart phones are used for various purposes like entertainment, shopping, office or business, and etc. As these gradually become normal tools for individuals, mobile applications can be developed and applied in other way such as during disasters.

This project would also develop a mobile application that would be released out in the market. The application can be used for emergency purposes. Smart phones would be used to connect to the communication tower; the mobile phone will have allotted number information that will be stored on the system’s database. By this, an individual who has downloaded the application can communicate to other person who also has the application. The mobile application provides call and is free of charge. It will not also use any mobile data network for the call function. Likewise it will offer a faster communication than traditional call services. This proposed project could help provide for a limited time but prolonged power outages can bring down the cell service in an affected area. If this happens, the residents suddenly might be unable to communicate via text messages or connect to online to navigate. Sending or receiving vital information from any other individual about an emergency would become difficult.

MATERIALS AND METHOD

Methods

The researchers used the purposive sampling method. A purposive sample is where researchers selected a sample based on their knowledge about the study and population. The participants are selected based on the purpose of the sample. In this method of sampling, the choice of sample items depends exclusively on the judgment of the investigator. That is, the investigators exercise their judgment in the choice and include those items in the sample.

Materials

2pcs Raspberry pi 3 model b, 2pcs Microwave Antenna, 2pcs Wireless Router, Solar Panel, Rechargeable Battery, Inverter, Solar Charge Controller, 6pcs Rj 45 LAN Cables, Portable Bag, and 2pcs Pole.

RESULTS AND DISCUSSION

SOP 1. What are the problems encountered in the previous version of the Emergency Communication System?

The following are the problems encountered by the previous version of the Emergency Communication System:

A. It required a lot of time to set up the system.

B. The back—up power supply casing required a more robust one.

SOP 2. What system can be proposed to improve the previous version?

To solve the problem of requiring a lot of time setting up the system, the researchers decided to replace the laptop server used to a raspberry pi 3 in order to give the system the ease of set-up instead, give it just a plug and play capability. Also the researchers have remodeled and reconstructed a more robust back—up power supply casing.

SOP 3. What are the similarities and differences of the previous and proposed system?

A. The new system looks and function were the same with the previous version except for the innovated part which were the server of the system and the addition of the plug and play setting up of the system.

SOP 4. What is the assessment of the two groups of respondents namely; Users and I.T literate individuals in terms of the following criteria? Is there any significant difference?

The Summary on Assessment of EMERCOM V2

	Indicators	Users		I.T. Professionals		Composite		Rank
		WM	VI	WM	VI	WM	VI	
1	Functionality	4.24	E	4.37	E	4.31	E	3
2	Usability	4.33	E	4.35	E	4.34	E	1.5
3	Reliability	4.30	E	4.20	E	4.25	E	4
4	Efficiency	4.22	E	4.47	E	4.34	E	1.5
5	Maintainability	4.27	E	4.13	VG	4.20	E	5
	Overall Weighed Mean	4.26	E	4.27	E	4.26	E	

The data shows that the Emergency Communication System v2.0 in terms of its functionality, usability, efficiency and maintainability were viewed as an excellent system by both the Users and I.T. Professionals.

The Summary on the Significant Difference on the Respondent's Assessment.

	Variables	Users		I.T. Professionals					t-test
		WM	Variance	WM	Variance	t-value	t -critical	Int.	Decision
1	Functionality	4.24	0.02	4.37	0.02	-1.03	2.78	NS	Failed to Reject
2	Usability	4.33	0.00	4.35	0.01	-0.33	4.30	NS	Failed to Reject
3	Reliability	4.30	0.00	4.20	0.00	3.00	4.30	NS	Failed to Reject
4	Efficiency	4.22	0.01	4.47	0.08	-1.38	2.78	NS	Failed to Reject
5	Maintainability	4.27	0.00	4.13	0.04	1.06	2.78	NS	Failed to Reject

Table shows the summary on the significant difference on the respondent's assessment on the above cited criteria. On the criteria "Functionality", the computed t-value of –1.03 is less than the t-critical of 2.78. The hypothesis is failed to reject; therefore, there is no significant difference in the assessment of the two groups of respondents. Similarly, on the criteria "Usability", the computed t-value of -0.33 is less than the t-critical of 4.30. The hypothesis is failed to reject; therefore, there is no significant difference in the assessment of the two groups of respondents. Furthermore, on the criteria "Reliability", the computed t-value of 3.00 is less than the t-critical of 4.30 the hypothesis is failed to reject; therefore, there is no significant difference in the assessment of the two groups of respondents. In addition, on the criteria "Efficiency", the computed t-value of -1.38 is less than the t-critical of 2.78. The hypothesis is failed to reject; therefore, there is no significant difference in the assessment of the two groups of respondents. Likewise, on the criteria "Maintainability", the computed t-value of 1.06 is less than the t-critical of 2.78. The hypothesis is failed to reject; therefore, there is no significant difference in the assessment of the two groups of respondents.

CONCLUSION

This paper has discussed the design and implementation of a back-up communication system which is independent from the existing communication system which can be used in case of calamities and disasters. This study was taken with the main objective to develop an Emergency Communication System (EMERCOM V2), which improves and innovate the original version.

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BABY CRY IDENTIFIER USING MOBILE APP FOR FORMULA MILK MIXER

Joevelyn W. Fajardo
Merlita C. Latip

INTRODUCTION

Pattern recognition is concerned primarily with the description and classification of measurements taken from physical or mental processes. Pattern recognition is a branch of machine learning that focuses on the recognition of patterns and regularities in data, although it is in some cases considered nearly synonymous with machine learning. Pattern recognition systems are in many cases trained from labeled "training" data (supervised learning. But when no labeled data are available other algorithms can be used to discover previously unknown patterns (unsupervised learning).

“Baby Cry Identifier using Mobile App for Formula Milk Mixer” is a machine wherein it will make formula milk for the baby by means of controlling it manually (Push Button) or automatically (Mobile App). In addition, the Mobile Application can monitor the baby, alert and give notification to the parents or guardian when the baby begins to cry and identify the cause why the baby is crying.

Since the automated formula milk dispenser had been invented the researchers came up with the idea of aside from controlling it using the mobile application, why not add some features where it can detect and determine the meaning of baby’s cry and can give alternative solution for the baby to stop crying.

Using automated formula milk dispenser can be more accurate because the machine will automatically measure out the amount of milk and water is needed to make baby's food. It can lessen air bubbles because most of the time when mixing formula with water, air bubbles often form. These bubbles of air cause young children to cause gas, which can make them feel uncomfortable later in the day. Lastly, it can be more consistent in temperature because it has a temperature gauge that can be used to set the temperature of the bottle to be the same every time. People will no longer need to pour the formula over the wrist to make sure that it is not too hot for the baby to drink. While the mobile application can be used, to detect and determine the meaning why the baby is crying.

METHODOLOGY

Methods of Research

The researchers used Quasi-Experimental Research Method for the hardware development of the research design. In doing the hardware, it is needed to perform experiment. The materials needed are, hypothesis, questions and conclusion about the result of the experimentation. The researchers either accepted or refuted the null hypothesis.

The researchers used descriptive research. It is also called statistical research which describes all characteristics and information from the process in solving the problem. This instrument was used in the study and to find the description.

Sample and Sampling Technique Used

The researchers utilized the random sampling in getting the number of respondents for the given study with the target population of 75. The target samples were at least 75 respondents. The proponents gathered 75 respondents overall.

Locale of the Study

The study was conducted in Barangay Paang Bundok, Laloma, and 166 Iriga St. Quezon City.

Respondents of the Study

The respondents of this study were the all mothers or parents who had babies in their houses in the barangay for a total of 75.

Data Gathering Procedure

The researchers gathered data and information through sharing each other ideas, conducting research on libraries, reading books and articles, surfing internet that led them to be more determined in conducting the study and creating the device entitled “Baby Cry Identifier using Mobile App for Formula Milk Mixer”.

Instrumentation

In this study, the researchers used Survey Instrument. A survey instrument is a tool for consistently implementing a scientific protocol for obtaining data from respondents. For most social and behavioral surveys, the instrument involves a questionnaire that provides a script for presenting a standard set of questions and response options.

RESULT AND DISCUSSION

A. Physical Structure

Experiment No. 1

Question: What are the materials needed in the development of “Baby Cry Identifier Using Mobile App for Formula Milk Mixer” in terms of:

Material(s):

[illegible]

Materials	Specification
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

Conclusion(s): Therefore, the researchers concluded that wood as a divider and file storage box should be used as a cover of the machine would be lighter in weight than metal and much stronger to carry all the hardware parts than illustration board.

B. Control Unit

Experiment No.2

Conclusion(s): Therefore, the researchers concluded that the microcontroller to be used for the machine was the Arduino Mega instead of Arduino Nano because of insufficient number of pins and too short for the storage.

Problem No. 2

How will the “Baby Cry Identifier using Mobile App for Formula Milk Mixer” be developed in terms of:

A. Physical Structure

Experiment No. 3

Conclusion(s): Therefore, the researchers concluded that using 12volts can spin the mixer normally.

Problem no. 3

What are the features to be considered in developing the monitoring of "Baby Cry Identifier Using Mobile App for Formula Milk Mixer" in terms of:

Table 2

Screen Layout

Features	Weighted Mean	Rank	Descriptive Interpretation
1. The application can record the last time the baby cry.	1.15	14	Not Required
2. The application has display the name of the baby.	1.31	15	Not Required
3. The application displays error if not start properly.	2.87	1	Required
4. The application can let the user view the results of monitoring the baby.	1.18	12.5	Not Required
5. The application has a standby mode that would keep the application open.	2.73	2	Required
6. The application has a night mode.	1.41	8.5	Not Required
7. The application can record the pitch and frequency of baby cry to predict emotional state of the baby.	1.41	8.5	Not Required
8. The application has a visible message if it is connected or disconnected to the machine.	2.50	3	Required
9. Notification appears when the battery is running low.	1.40	11	Not Required
10. The application has a free demo example of baby cry that can play.	1.45	4.5	Not Required
11. The application can run even if the screen is off.	1.45	7	Not Required
12. The application has a setting to change the default language to English or Filipino.	1.46	4.5	Not Required
13. The application has a display for the best baby's product should buy.	1.42	8	Not Required
14. The application has a display of the analyzed percentage of cry on your screen.	1.45	4.5	Not Required
15. The application provides explanation of what cry it will identify.	1.18	12.5	Not Required
Grand Mean:	1.6388		Fairly

Table 3

System Capability

Features	Weighted Mean	Rank	Descriptive Interpretation
1. The system has a notification if the machine is connected or not.	2.52	3.5	Required
2. The system user will receive a notification when the milk is ready.	2.52	3.5	Required
3. The system has a setting option.	1.41	11.5	Not Required
4. The system can identify the meaning of the baby cries within 10 seconds only.	2.58	2	Required
5. The system can be controlled using voice command.	2.52	3.5	Required
6. The system can send notification through call and text.	2.51	6	Required
7. The system can access another data simultaneously.	1.32	13	Not Required
8. The system can save all the monitoring process done by the application.	1.44	10	Not Required
9. The system can open the previous project.	1.28	14	Not Required
10. The system can be sharable through sharing application.	2.65	1	Required
11. The system can play lullaby song when the identified cry is because the baby is sleepy.	1.55	7	Fairly
12. The application can import sound from other files.	1.46	8	Not Required
13. The system has a basic ways to stop the baby from crying.	1.45	9	Not Required
14. The system can send to other device the recorded file.	1.41	11.5	Not Required
15. The system can save basic information about the baby.	1.35	15	Not Required
Grand Mean:	1.874		Fairly

Problem no. 4

How the respondents assess the developed "Baby Cry Identifier using Mobile App for Formula Milk Mixer" in terms of:

Table 4

System Design

Features	Weighted Mean	Rank	Descriptive Interpretation
1. It can display error message if it is not start properly.	4.56	2	Extremely Important
2. It can displayed visible message if it is connected or disconnected to the machine.	4.13	8	Important
3. It can displayed confirmation message upon closing the application.	4.2	7	Important
4. It can display the developer's information.	3.96	10	Important
5. The user interface has an organized layout.	4.11	5.5	Important
6. The button has a layout that is properly arranged.	4.11	5.5	Important
7. It provides manual mode.	4.33	3	Important
8. It can displayed instruction for the user.	3.99	9	Important
9. It can provide description in every button.	4.8	1	Extremely Important
10. It can provide back button in every form.	4.26	4	Important
Grand Mean	4.393		Important

Table 5

Effectiveness and Efficiency of the System

Features	Weighted Mean	Rank	Descriptive Interpretation
1. It can notify the user if the machine is connected or not.	[illegible]	[illegible]	Important
2. It can send notification to the user when the milk is ready.	[illegible]	[illegible]	Important
3. It can be controlled using voice command.	[illegible]	[illegible]	Important
4. It can send notification through call and text.	[illegible]	[illegible]	Important
5. It can share through sharing application.	[illegible]	[illegible]	Important
6. It can provide manual control.	[illegible]	[illegible]	Important
7. It can played lullaby songs.	[illegible]	[illegible]	Important
8. It can keep the application running even the screen is off.	[illegible]	[illegible]	Important
9. It can accept contact numbers that has 11 digits.	[illegible]	[illegible]	Important
10. It can send message in any cellular network.	[illegible]	[illegible]	Important
Grand Mean:	[illegible]		Important

Functionality of the System

Features	Weighted Mean	Rank	Descriptive Interpretation
1. It can identify the meaning of the baby cry.	[illegible]	[illegible]	Slightly
2 It can give a message before closing the application.	[illegible]	[illegible]	Important
3. It can work manually and automatically.	[illegible]	[illegible]	Important
4. It can detect the baby cry that triggers the machine to operate.	[illegible]	[illegible]	Important
5. It can mix the milk after receiving a signal sent by the app.	[illegible]	[illegible]	Important
6. The buttons work functionally and easy to use.	[illegible]	[illegible]	Important
7. It is usable without internet.	[illegible]	[illegible]	Important
8. It can search phone number in the user's contacts.	[illegible]	[illegible]	Important
9. It can automatic played lullaby if the application detected the baby is crying.	[illegible]	[illegible]	Important
10. It can stop lullaby song.	[illegible]	1	Important
Grand Mean:	[illegible]		Important

CONCLUSION AND RECOMMENDATIONS

A. Conclusion

Based on the findings, the researchers came up with the following conclusions:

1. On the experimental research on SOP No.1 in terms of physical structures the researchers concluded that the file storage box should be used as a cover of the machine with the use of wood as a divider because it was lighter than metal and much stronger to carry all the hardware parts than an illustration board. In terms of control unit, the researchers concluded that the microcontroller would be used for the machine was the Arduino Mega since it has sufficient number of pins and large storage.

2. On the experimental research on SOP No.2 in terms of physical structures, the researchers concluded that the container to be used is plastic instead of metal because it was lighter than metal. In terms of Milk Mixer Dispenser, the researchers concluded the use of 12 volts to the mixer so that it would spin normally in the electric kettle and the water would not be splashed.

3. On the features to be considered in the Baby Cry Identifier using Mobile App for Formula Milk Mixer in terms of Screen Lay-out, the respondents assessed that features should include: the application display error if it does not start properly; the application has a standby mode that would keep the application open; and the application has a visible message if it is connected or disconnected to the machine. In terms of System Capability, the respondents assessed that features should include: the system can be sharable through sharing application; the system can identify the meaning of the baby cries within 10 seconds only; the system has a notification if the machine is connected or not; the system user will receive a notification when the milk is ready and the system can be controlled using voice command.

4. On the assessments to be considered in the Baby Cry Identifier using Mobile App for Formula Milk Mixer in terms of Screen Design; the respondents assessments should include: it can provide description in every button; it can display error message if it is not start properly; and the button has a layout that is properly arranged. In terms of Effectiveness and Efficiency of the System, the respondents assessments should include: it can notify the user if the machine is connected or not; it can send message in any cellular network; it can play lullaby songs; it can automatic play lullaby if the application detected that baby is crying; and it can work manually and automatically. In terms of Functionality of the System, the respondents' assessments should include: it can stop lullaby song; it is usable without internet; the buttons works functionally and easy to use; it can send notification to the user when the milk is ready; and it can accept contact numbers that has 11 digits.

B. Recommendation

Based on the findings and conclusions of the study, the following recommendations were given:

1. It is recommended to add an additional sensor and functions to the machine as this will provide more efficiency to the client.

2. In the selection of materials, the size and weight should be considered as this will serve as a basis to fit different components and materials for convenience of the client.

3. In the mobile application, it is recommended to add features wherein the application can give an alternative ways in attending the needs of the baby.

4. It is also recommend that the mobile application can let the user to give their feedback when using the mobile application.

5. And for the accessible purposes it is recommended that the mobile application can connect through internet.

6. To the future researchers, it is recommended to find more enhancements for further features of this study for the convenience of the user.

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PROPOSED DEVELOPMENT OF TEACHING-LEARNING MODULE IN HISTORY OF ARCHITECTURE 1

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INTRODUCTION

The Architecture Program in Eulogio "Amang" Rodriguez Institute of Science and Technology was offered during the 70's. In this period, the delivery of classroom instructions was only through the aid of chalkboards and available textbooks. Over the time, classroom instructions evolved with the addition of whiteboards and transparencies where pictures and graphs can be projected in a larger scale. Though this instructional aide is helpful in facilitating the teaching and learning process, it is a different story when you talk about teaching the subject History of Architecture.

When one of the proponents was still a student, she witnessed how the faculty handling this subject struggled. In order for him to make his students understand the topic, he needs to write and draw everything that needs to be discussed on the board. This method requires drawing skills from the faculty so that the student could see the illustrations clearly. This also consumes so much time thus leaving no time for discussion. The result, there was little learning that took place and the learning objective was not met.

Today, facing the same problem in teaching history of architecture as her former professor does, not to mention the myriad problems our government hurdles sometimes resulting to the suspension of classes, and the expensive architectural books that the EARIST architecture students cannot afford to buy, the proponent collaborated with two of her co-architecture faculty and proposes to develop a teaching-learning module in History of Architecture 1.

A teaching-learning material that can help the teacher convey the core information that the students need to experience, learn and apply during the course, and therefore facilitate teaching-learning process.

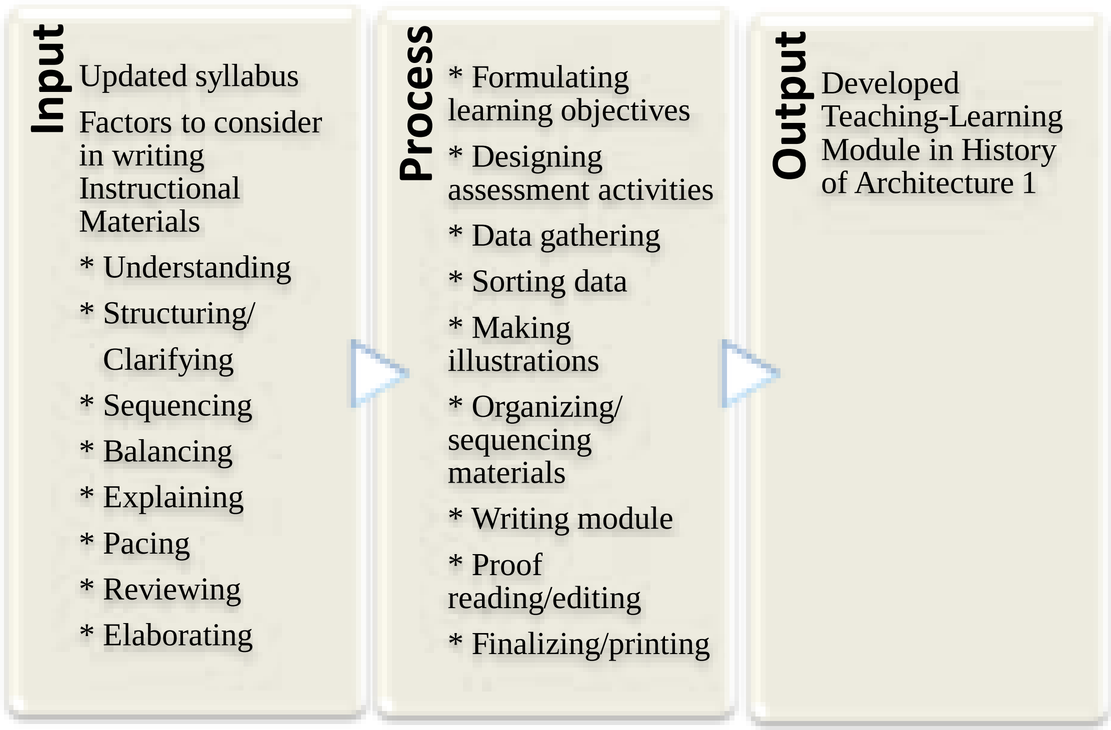
This teaching-learning material must be carefully planned, selected, organized, refined, and be used in a course for the maximum effect. The planning of this material should take into consideration both the breadth and depth of content so that student learning is optimized, (https://designteachengage.wisc.com/) thus, this study was conducted.

STATEMENT OF THE PROBLEM

This study is undertaken to develop a teaching-learning module in History of Architecture 1 that is tailored to the content of the subject, to the students who will use the module, and the teacher handling the said subject.

The teaching-learning module should be developed with the following factors to be considered: a.) understanding; b.) structuring/clarifying; c.) sequencing; d.) balancing; e.) explaining; f.) pacing; g.) reviewing; and, h.) elaborating. (*Patrixia Ann Baldonaza*)

CONCEPTUAL FRAMEWORK



SIGNIFICANCE OF THE STUDY

Teaching materials is a generic term used to describe the resources teachers use to deliver instruction. Teaching materials can support student learning and increase student success. Ideally, the teaching materials will be tailored to the content in which they are being used, to the students in whose class they are being used, and the teacher. Teaching materials come in many shapes and sizes, but they all have something in common, the ability to support student learning.

This Proposed Development of Teaching-Learning Module in History of Architecture 1 is beneficial for the following:

Student Learning Support

This teaching-learning module is important because this can significantly increase student achievement in the subject History of Architecture 1, by providing the students with opportunities to apply the new knowledge and skills gained in class. This process aids in the student learning by allowing them to explore the knowledge independently as well as providing repetition.

Lesson Structure

Learning module can also add important structure to lesson planning and the delivery of instruction. This can act as a guide for both the teacher and the students for this can provide a valuable routine.

Differentiation of Instruction

In addition to supporting learning, learning module can assist teachers in an important professional duty; the differentiation of instruction. The differentiation of instruction is the tailoring of lessons and instructions to the different learning styles and capacities of the students within the class. Learning module allows the teacher to modify assignments and activities that best stimulate and activate each student's individual learning style.

Income Generation

The production of the learning module can also help the institution with their income generation project. The students may opt to avail of the module tailor made for their specific subject than buy several books from the bookstore for that same subject. By this exchange, it would be beneficial for both the institute and the students.

REVIEW OF RELATED LITERATURE AND STUDIES

The proposed development of the teaching-learning module in History of Architecture 1 was anchored from the following statements, literature and studies.

According to Dr. Christopher White, Lynn Manfred, et al.; in their paper entitled ***Instructional Methods and Strategies***, Methods are the means and ways that we use to teach material to our students. Our choice of methods depends on “what we want to teach” (content), “who we are teaching”, and the “level of competence expected”.

History of Architecture 1 tackles about the architectural reflections, the style and methods of construction used by the people from the ancient civilization up to the twelfth century. This subject has a very broad contents and this is given during the first semester of the first year level of architecture as specified on the new curriculum. At the end of the semester, the students are expected to digest and retain in their minds the knowledge and information given to them and they should be able to apply it in their other subjects especially in architectural design. With this expectation, the learning module is a great learning support for them for they can browse through it over and over again.

Hilda Ng ‘etich Tuimur and Bernard Chemwei from the International Journal of Education and Practice, stated that Instructional materials are those materials used by a teacher to simplify their teaching. They include both visual and audio-visual aids and could either be concrete or non-concrete. They even quoted Kadzera's 2006 statement that Instructional materials bring life to learning by stimulating students to learn. The use of instructional materials in the classroom has potential to help the teacher explain new concepts clearly, resulting in better student understanding of the concepts being taught. However, they are not ends in themselves but they are means to an end.

Finally, Race emphasizes that the main principle underlying the use of self-instructional materials is to make learning reactive, interesting, successful and humane. And from all of these statements, the proponents propose the development of teaching-learning module in History of Architecture 1.

METHODOLOGY

The proponents utilized the descriptive method for the proposed development of teaching-learning module for History of Architecture 1.

This teaching-learning module is intended for use in the subject History of Architecture 1 during the first semester of the first year level of the Architecture Program of Eulogio “Amang” Rodriguez Institute of Science and Technology, both by the teacher and the students.

Data gathered were from the sources such as printed architectural books, particularly History of Architecture books, electronic books, architectural journals and magazines, and the internet. The data were then sorted, organized and consolidated and prepared for the proposed development of the teaching-learning module.

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BITTER MELON CANDY

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INTRODUCTION

Candy also called sweets or lollies, is a confection that features sugar as a principal ingredient. There are also vegetables, fruits or nuts which have been glazed and coated with sugar are said to be candied, thus, belongs to the category, called sugar confectionery which encompasses any sweet confection, including chocolate, chewing gum and sugar candy.

Candy dates back to the caveman who created the idea of candy by eating honeycombs and honey. Which can be traced back as far as 1500BC to the ancient Egyptians who used honey and made candy by adding figs, nuts, dates, and spices. Ancient Egyptians also combined fruits and nuts with honey. Around the same time, Greeks used honey to make candied fruits and flowers. First modern candies were made in the 16th century and sweet manufacturing developed rapidly into an industry during the early 19th century.

Candies are still served in this form today, though now it is more typically used for dessert. In the Middle Ages candy appeared on the tables only the wealthiest at the first. At that time it began as a combination of spices and sugar that was used as an aid to digestive neither fresh well balanced. Banquet would typically serve these types of candies for their guests. This gives an idea of developing a candy made of bitter melon to lessen diabetes decease.

Bitter melon is used by many with blood sugar issues, including diabetes, to manage blood sugar by increasing the metabolism of glucose. Bitter melon’s flavor is often described as chalky and even unpleasant, which may be why it has taken so long to get a bitter melon recipe into your repertoire. But prepared correctly, bitter melon can be quite pleasant to eat.

Bitter Melon as a vegetable has a distinct warty exterior and an oblong shape. It is hollow in cross-section, with a relatively thin layer of flesh surrounding a central seed cavity filled with large, flat seeds and pith. The fruit is most often eaten green, or as it is beginning to turn yellow. At this stage, the fruit's flesh is crunchy and watery in texture, similar to cucumber, chayote or green bell pepper, but bitter. The skin is tender and edible. Seeds and pith appear white in unripe fruits; they are not intensely bitter and can be removed before cooking.

This is the reason why the researchers decided to create a kind of candy that will be a great help in fighting diabetes and for those who are suffering from law sugar in the blood. This will serve as a simple dessert with slight bitterness where ingested. The main ingredients of this product are butter, corn starch, salt, water, light corn syrup, food color and bitter melon and this candy could be high in Energy.

The researchers had chosen to study about Bitter Melon to determine the benefits and the medicinal effect of this vegetable. The researchers conducted this study utilizing Bitter Melon as the main ingredient in the development of Bitter Melon Candy. Likewise, the product can be one of the healthy options in buying candies in the market.

METHODOLOGY

This study used the descriptive research method to determine the potential of Bitter Melon as another flavored for candies. Descriptive research gathers quantifiable information that can be used for statistical inference on your target audience through data analysis. This type of research takes the form of closed-ended questions, which limits its ability to provide unique insights. However, it can help an organization better define and measure the significance of something about a group of respondents and the population they represent.

The respondents were sampled and described as to the selected variables to present their profile. The researchers used purposive sampling in the selection of the respondents needed in the study. The purposive sampling was used because the respondents would be chosen the basis of their knowledge on the information desired. There were fifty (50) respondents in the study comprising of ten (10) Candy makers and forty (40) Consumers.

RESULTS AND DISCUSSION

Sub problem No. 1 What are the ingredients, tools, and procedures in preparing Bitter Melon Candy?

Table 1

Ingredients used in the Preparation of Bitter Melon Candy

Quantity	Unit of Measures	Ingredients/Specification	Unit Price	Unit
4	tbsp.	Butter	Php 56.00/225g	P 14.93
2	cups	Sugar	54.00/1000g	25.92
2	tbsp.	Cornstarch	30.00/100g	9.00
1	cup	Corn syrup	80.00/750g	26.66
1	tsp.	Salt	10.00/250g	0.20
¼	cup	Ampalaya juice	55.00/1000g	3.44
1	tsp.	Food Coloring	36.00/75ml	2.40
			Total	Php 82.55
		Yield: 70	Unit Cost	Php1.18/pc

Table 2

Tools and utensil Used in the preparation of Bitter Melon Candy

Quantity	Unit	Specification
1	pc	Spatula
1	pc	Mixing bowl
1	pc	Saucepan
1	pc	Thermometer
1	pc	Measuring Cups
1	pc	Measuring Spoons
1	pc	Kitchen Scissor

Procedure in the preparation of Bitter Melon Candy

1. Assemble all ingredients that will use in the preparation of Bitter Melon Candy as shown in figure 2

Figure 2. Ingredients that will use in the preparation of Bitter Melon Candy.

2. In a large saucepan add all the ingredients. Then stir in medium heat until the butter melt

Figure 3. Combine Sugar, Cornstarch, Corn Syrup, Water, Butter, salt, Ampalaya juice, and Green Food Coloring.

3. Once Butter has melted, Insert candy thermometer and heat mixture until 250F. Remove from heat and pour hot liquid into a buttered pan. Allow cooling to touch.

4. Once Cooled, Remove Candy from the pan and Start to pull it with buttered hands. Stretch candy piece over and over again until the color changes from translucent to opaque.

Figure 4. Cooling of candy mixture.

5. Pull candy into a long rope. Butter the blades of a pair of kitchen scissors and cut rope into bite-sized pieces then roll it. Wrap candy using plastic cellophane.

Figure 5. Packaging the product

Sub Problem No. 2: How do the respondents assess the Quality Characteristics of Bitter Melon Candy?

Table 3

Assessment of the Quality Characteristics of Bitter Melon Candy

Criteria	Experts		Consumers		Composite		Rank
	WM	VI	WM	VI	WM	VI	
1. Appearance	4.70	E	4.68	E	4.69	E	1
2. Flavor	4.60	E	4.43	E	4.52	E	4
3. Texture	4.80	E	4.50	E	4.65	E	2
4. Consistency	4.50	E	4.73	E	4.62	E	3
Composite Weighted Mean	**4.65**	**E**	**4.59**	**E**	**4.62**	**E**	

Legend:

5	*4.20-5.00*	*Excellent*	*E*
4	*3.40-4.19*	*Very Good*	*VG*
3	*2.60-3.39*	*Good*	*G*
2	*1.80-2.59*	*Fair*	*F*
1	*1.00-1.79*	*Poor*	*P*

Table 3 displayed the assessment of the Quality Characteristics of Bitter Melon Candy rated as Excellent with an overall weighted mean of 4.62. All items rated Excellent, namely: Appearance with a composite weighted mean of 4.69 as rank 1; Texture with a composite weighted mean of 4.65 as rank 2; Consistency with a composite weighted mean of 4.62 as rank 3; and Flavor with composite weighted mean if 4.62 as rank 4.

As to the groups of respondents' assessment on the Quality Characteristics of Bitter Melon Candy are as follows: Experts rated as Excellent with a composite weighted mean of 4.65, and Consumers rated as Excellent with a composite weighted mean of 4.59.

Sub Problem No. 3: Is there a significant difference on the assessment of the two groups of respondents on the Quality Characteristics of Bitter Melon Candy using the aforementioned variables?

Table 4

Comparison of Assessment on the Quality Characteristics of Bitter Melon Candy

Df	t-value	critical value	Decision	Interpretation
48	0.04278	1.684	Accept Ho	Not Significant

Legend: @0.05 level of significance

As depicted in Table 4, the computed t-value on the Quality Characteristics of Bitter Melon Candy as assessed by experts and consumers is 0.04278 which is lower than the critical value of 1.648 with the degree of freedom of 48 at 0.05 level of significance. Hence, there is no significant difference on the assessment of Quality Characteristics of Bitter Melon Candy. Therefore, the hypothesis is accepted.

Sub Problem No. 4: **What is the Level of Acceptability of Bitter Melon Candy as assessed by the respondents?**

Table 5

Level of Acceptability of Bitter Melon Candy

Criteria	Experts		Consumers		Composite		Rank
	WM	VI	WM	VI	WM	VI	
1. Appearance	4.80	HA	4.55	HA	4.68	HA	2
2. Flavor	4.50	HA	4.40	HA	4.45	HA	4
3. Texture	4.60	HA	4.60	HA	4.60	HA	3
4. Consistency	4.70	HA	4.68	HA	4.69	HA	1
Composite Weighted Mean	**4.65**	**HA**	**4.56**	**HA**	**4.60**	**HA**	

Legend:

5	*4.20-5.00*	*Highly Acceptable*	*HE*
4	*3.40-4.19*	*Acceptable*	*A*
3	*2.60-3.39*	*Moderately Acceptable*	*MA*
2	*1.80-2.59*	*Least Acceptable*	*LA*
1	*1.00-1.79*	*Not Acceptable*	*NA*

Table 5 revealed the Level of Acceptability of Bitter Melon Candy rated as Highly Acceptable with an overall weighted mean of 4.60. All items rated Highly Acceptable, such as Consistency with a composite weighted mean of 4.69 as rank 1; Appearance with a composite weighted mean of 4.68 as rank 2; Texture with a composite weighted mean of 4.60 as rank 3; and Flavor with a composite weighted mean of 4.45 as rank 4.

As to the groups of respondents' Level of Acceptability of Bitter Melon Candy are as follows: Experts rated as Highly Acceptable with a composite weighted mean of 4.65, and Consumers rated as Highly Acceptable with a composite weighted mean of 4.56.

Sub Problem No. 5: **Is there a significant difference in the assessment of the two groups of respondents on the level of Acceptability of Bitter Melon Candy**

Table 6

Comparison of Assessment on the Acceptability of Bitter Melon Candy

Df	t-value	critical value	Decision	Interpretation
48	0.06097	1.684	Accept Ho	Not Significant

Legend: @0.05 level of significance

As manifested in Table 6, the computed t-value on the Acceptability of Bitter Melon Candy as assessed by experts and consumers is 0.06097 which is lower than the critical value of 1.648 with the degree of freedom of 48 at 0.05 level of significance. Hence, there is no significant difference on the assessment of Acceptability of Bitter Melon Candy. Therefore, the hypothesis is accepted.

Sub Problem No. 6: What is the result of the Nutritional Facts analysis of Bitter Melon Candy?

PARAMETERS	Bitter Melon Candy (SAL-18-0742-F1)	METHODOLOGY
Potassium, mg/100g	11.6	AAS1
Iron, mg/100g	0.90	AAS1
Total Fat, g/100g	2.5	Acid Hydrolysis

The result of the nutrient analysis of Bitter Melon Candy conducted on Sentro sa Pagsusuri, Pagsasanay, at Pangangasiwa Pang-Agham at Teknolohiya Corp. were the following: Potassium, mg 100/g with 11.6, iron, mg/100g with 0.90, and total fat, g/100g with 2.5.

CONCLUSIONS, AND RECOMMENDATIONS

From the findings of the study, the following conclusions are drawn.

1. Bitter Melon can be used as one of the main ingredients in the preparation of candy.

2. The Bitter Melon Candy has excellent quality Characteristics.

3. The two groups of respondents have a common assessment on the quality characteristics of Bitter Melon Candy.

4. Bitter Melon Candy is highly acceptable as to the selected groups of respondents.

5. The two groups of respondents gave the same views on the level of acceptability of Bitter Melon Candy in terms of texture, appearance, flavor, and consistency.

6. Bitter Melon Candy contains Potassium, Iron and fat.

In view of conclusions drawn from the finding of the study, the following recommendations are forward:

1. Bitter Melon is recommended to be used as the main ingredient in making a Bitter Melon Candy.

2. Further experimentation may be done to enhance its texture, appearance, flavor, and consistency to standardize the recipe.

3. Enhance the Bitter Melon Candy packaging for better presentation and snarled appeal.

4. The administration, through the college, may consider financing the production of Bitter Melon Candy via the IGP office, this can be considered as one of the income generates projects of the institute.

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DEVELOPMENT OF AN ANDROID-BASED TEST CHECKER WITH DATA ANALYSIS

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INTRODUCTION

Cannot be undermined the good value of examination. Any reputable institution, public or private, business or educational requires all entrants to pass a standard examination. The government, through its various departments, requires prospective personnel to take a battery of tests that will determine their employees' career aptitude, so that they can be given jobs that suit their qualifications. The business sector, in like manner, does the same. The education sector, on the other hand, requires student applicants to pass a set of examinations to determine who should be admitted and periodically assesses the performance of the students currently enrolled. Formulating a good examination is therefore the thrust of every agency involved in education and employment. This task calls for a table of specifications and course objectives, which set the learning targets at the cognitive level; some cases where necessary, the expected psychomotor skills or affective skills more necessary. These prerequisites show that preparing good examination questions required a great deal of thinking and preparation on the part of the persons doing the task.

A Test Checker with Data Analytics application that checks and counts the correct answers similar to a human being. This software application is built to check subjective answers in a quiz and examinations and also display the marks on the screen of mobile phone. The application requires you to scan the original answer for the system. Both answers do not have to be exactly the same word by word. The application uses an OpenCv language to verify answers and calculates scores accordingly as good as a human being and provides result instantly.

When the IBM ® 805 Test Scoring Machine was launched commercially in 1937, it became the first in a long line of such devices that are still being used today for processing standardized educational tests. Since the 1950s, fill-in-the-bubble test score sheets and mark sense scanners have remained the dominant technology in measuring results in large-scale testing programs in the world.

Since the need to item analyze the test questions is often ignored because of the difficulty and complexity of the process, there is a need to develop a system that will lessen, if not eliminate, the said difficulty or complexity. This project is a response to this need, for it has developed software for data analysis that will analyze the answers of the examinees of each item given accurately and efficiently. More specifically, this project attempted to answer these questions:

1. How does the Test Checker with Data Analytics differ with the traditional method, manual encoding with software method in terms of (a) Satisfaction, (b) Functionality, (c) Accuracy, (d) Usefulness and (e) User-friendliness?

2. What will be the contribution of the Test checker with data analytics to the users?

3. What will be the formulated recommendation to enhance the system?

The project design sought to save an advanced and easier way of checking test papers by just focusing the camera to the test papers and waiting for the result. To provide a data analysis of the test results, to scan unlimited test papers, to provide unbiased and accurate result and to store an organized data of students

MATERIAL AND METHODS

In this study, the descriptive research method was employed so as to identify the role and significance of survey to the people concerning in to the topic. The advocators opted to use this research method considering the objective to obtain first hand data from the respondents. The descriptive, as involving collection of data in order to test hypothesis or to answer questions concerning the current status of the subject in the study. This method can use either qualitative or quantitative data or both, giving the advocators greater option in selecting the instrument for data-gathering. The aim of the research is to determine the importance of checking test papers, the descriptive method is then appropriate for this research since it is used for gathering information regarding to the certain topic.

SUBJECTS

The respondent of the study are professors in different schools in Metro Manila and where composed of 10(ten) professors and 10(ten) experts in total of 20 respondents.
The researcher used survey method to a set of number of respondent which gave the participant a certain degree of freedom to enable to express them.

INSTRUMENTATION

To gather the important data in this study, researchers made a questionnaire to survey the ten experts and users about the "Test Checker with Data Analytics". A questionnaire is a means of eliciting the feelings, beliefs, experiences, perceptions, or attitudes of some sample of individuals. As a data collecting instrument, it could be structured or unstructured.

The questionnaire is most frequently a very concise, preplanned set of questions designed to yield specific information to meet a particular need for research information about a pertinent topic. The research information is attained from respondents normally from a related interest area. The dictionary definition gives a clearer definition: A questionnaire is a written or printed form used in gathering information on some subject or subjects consisting of a list of questions to be submitted to one or more persons.

PROCEDURES

In conducting a survey regarding test checker, these are the following steps that must be followed: First, the advocators must provide a questionnaire regarding Test Checker to be answered by the respondents. Second, the advocators must search those who are willing to lend their time to answer the questionnaire provided by the advocator. Third, the advocators must introduce themselves first followed by giving purposes in conducting a survey. After the respondent answered all the questions, the researcher must give thanks to the respondent for lending time to answer the following question asked by the researcher and for sharing their knowledge regarding to certain topic.

STATISTICAL ANALYSIS

The data collected in the study were organized and classified based on the research design and problems formulated. The data were coded, tallied, tabulated, and tabled to facilitate the presentation and interpretation of results using the following:

1. Frequency and Percentage. The percentage of the item is computed by dividing it with the same total number of respondents who participated in the survey. The formula used in the application of this technique is:

$$WM = \sum NR/TNR$$

WHERE:

WM = Weighted mean
NR = no. of respondents
TNR = total no of respondents
∑ = sigma which means sum

2. Weighted Mean. It is the sum of item values over the divided total number of items. It is the computed average and its magnitude is influence by every one of the item values in the rest, and used to describe as set of quantitative data provided the item values that constitute the set are considerably concentrated. It is computed by adding and dividing the sum by the total number of scores. This used to assess the demographic profile of the respondents.

RESULT AND DISCUSSION

The findings, analysis and interpretation of data gathered which main objective is to find out the expectation of the teachers towards the Test Checker with Data Analytics.

Table 1

Legend

Scale	Range	Interpretation	Symbol
5	4.50-5.00	Outstanding	O
4	3.50-4.49	Very Good	VG
3	2.50-3.49	Good	G
2	1.50-2.49	Fair	F
1	1.00-1.49	Poor	P

More specifically, the researchers sought to answer the following questions:

Sub problem No.1. How does the Test Checker with Data Analytics differ with the traditional method, manual encoding with software method in terms of:

1.1 Satisfaction

Table 2

Respondent's Assessments as to Satisfaction

Criteria	Experts		Users	
	WM	VI	WM	VI
I am satisfied with it.	4.70	O	4.60	O
I would recommend it to a friend.	4.50	O	4.80	O
I feel I need to have it.	3.40	G	4.80	O
It is pleasant to use.	4.30	VG	4.10	VG
It does everything I would expect it to do.	4.50	O	4.0	VG
COMPOSITE MEAN	**4.28**	**VG**	**4.46**	**VG**

Table 2 represents the criteria of the application in terms of satisfaction. The criteria 'I am satisfied with it.' got the highest weighted mean of 4.7 with an outstanding interpretation for the experts and the criteria 'I would recommend it to a friend.' &'I feel I need to have It.' got the same highest weighted mean of 4.8 for the teachers. The criteria 'It is pleasant to use.' &' It does everything I would expect it to do.' got the least weighted mean with 4.3 and 4.0.

1.2 Functionality

Table 3

Respondent's Assessments as to Functionality

Criteria	Experts		Users	
	WM	VI	WM	VI
Can view organized data of students.	4.60	O	4.30	VG
The app runs well.	4.50	O	4.90	O
Easy to scan Answer sheet.	3.90	VG	4.40	VG
Can produce data analytics.	4.10	VG	4.10	VG
The application provides accurate score.	4.80	O	4.0	VG
COMPOSITE MEAN	**4.38**	**VG**	**4.34**	**VG**

Table 3 represents the criteria of the application in terms of functionality. The criteria 'The application provides accurate score.' got the highest weighted mean of 4.8 with an outstanding interpretation for the experts and the criteria 'The app runs well.' got the same highest weighted mean of 4.8 for the teachers. The criteria 'Can produce data analytics.' &' the application provides accurate score.' got the least weighted mean with 4.1 and 4.0.

1.3 Accuracy

Table 4

Respondent's Assessments as to Accuracy

Criteria	Experts		Users	
	WM	VI	WM	VI
Convenient to use.	5.0	O	4.70	O
Free from errors.	4.60	O	3.60	VG
Various functions in this mobile app were all integrated.	4.30	VG	4.30	O
I would like to use this mobile app frequently.	3.00	G	4.50	O
I felt very confident using this mobile app.	3.50	VG	4.40	VG
COMPOSITE MEAN	**4.08**	**VG**	**4.34**	**VG**

Table 4 represents the criteria of the application in terms of Accuracy. The criteria 'Convenient to use.' got the highest weighted mean of 5.0 for the experts and 4.7 for the users with an outstanding interpretation. The criteria 'I would like to use this mobile app frequently.' &' free from errors.' got the least weighted mean with 3.0 and 3.60.

1.4 Usefulness

Table 5

Respondent's Assessments as to Usefulness

Criteria	Experts		Users	
	WM	VI	WM	VI
It helps me be more productive.	4.60	O	4.80	O
It makes the things I want to accomplish easier to get done.	3.90	VG	4.40	VG
It meets my needs.	3.50	VG	4.80	O
It is useful.	4.70	O	4.90	O
It saves me time when I use it.	3.80	VG	4.80	O
COMPOSITE MEAN	**4.10**	**VG**	**4.74**	**O**

Table 5 represents the criteria of the application in terms of Usefulness. The criteria 'It is useful.' got the highest weighted mean of 4.7 and 4.9 for the users with an outstanding interpretation .The criteria 'It meets my needs.' &' it makes the things I want to accomplish easier to get done.' got the least weighted mean with 3.5 and 4.4.

1.5 User-Friendliness

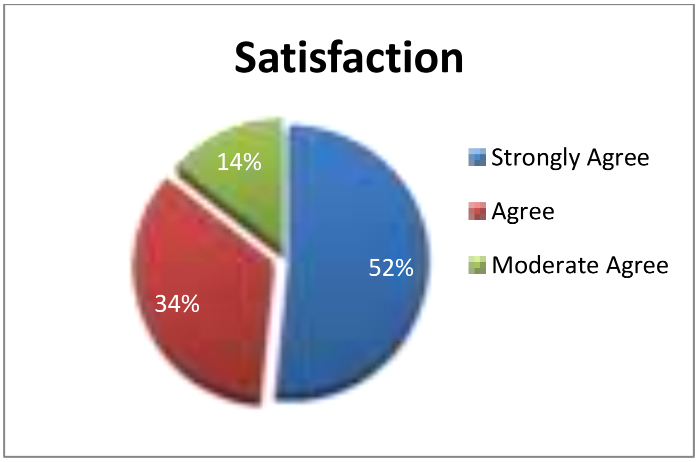
Table 6

Respondent's Assessments as to User-Friendliness

Criteria	Experts		Users	
	WM	VI	WM	VI
The designs and graphics are pleasant.	5.0	O	4.10	VG
Easy to use.	4.60	O	4.70	O
The app is unnecessarily complex.	3.80	VG	3.80	VG
Most people would learn to use this mobile app very quickly.	4.40	VG	4.70	O
It is flexible.	4.10	VG	4.10	VG
COMPOSITE MEAN	**4.38**	**VG**	**4.28**	**VG**

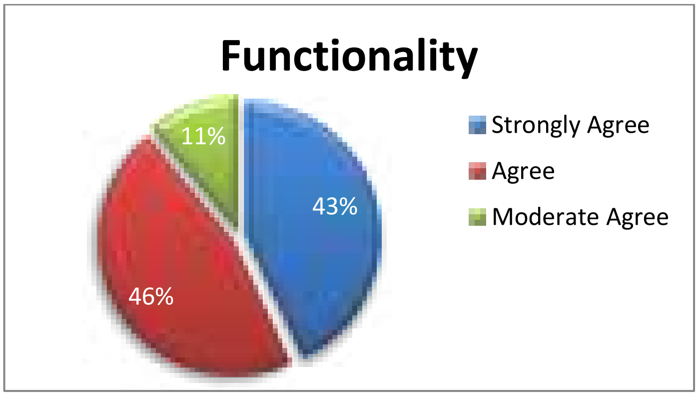
Table 6 represents the criteria of the application in terms of User-Friendliness. The criteria 'The designs and graphics are pleasant.' got the highest weighted mean of 5.0 for experts and the criteria 'Easy to use.' & 'Most people would learn to use this mobile app very quickly.' got the same highest weighted mean 4.7 for the users with an outstanding interpretation. The criteria 'The app is unnecessarily complex.' got the same lowest weighted mean with 3.8.

Graph 1



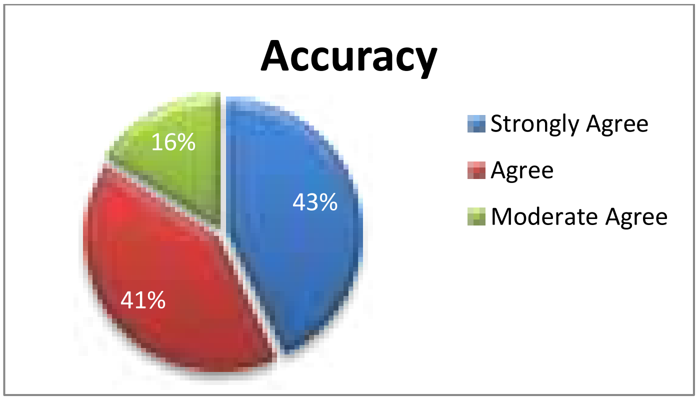
Out of 20 survey respondents, 52% of the respondents are strongly agree, 34% of the respondents are agree and 14% of the respondents are moderate agree.

Graph 2



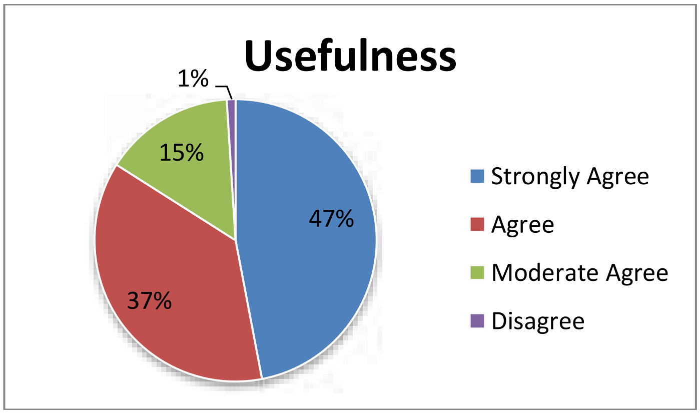
Out of 20 survey respondents, 43% of the respondents are strongly agree ,46% of the respondents are agree and 11% of the respondents are moderate agree.

Graph 3



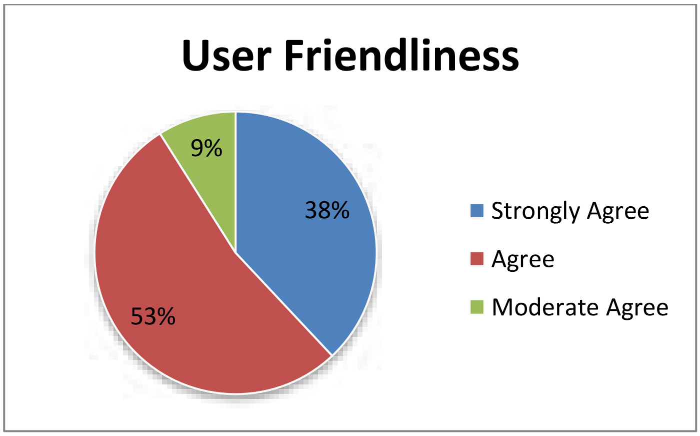
Out of 20 survey respondents, 43% of the respondents are strongly agree ,41% of the respondents are agree and 16% of the respondents are moderate agree.

Graph 4



Out of 20 survey respondents, 47% of the respondents are strongly agree ,37% of the respondents are agree ,15% of the respondents are moderate agree and 1% of the respondents are disagree.

Graph 5



Out of 20 survey respondents, 38% of the respondents are strongly agree 53% of the respondents are agree and 9% of the respondents are moderate agree.

Sub-Problem No.2 what will be the contribution of the Test checker with data analytics to the users?

2.1 It is useful for the teachers or professors.

2.2 Unlimited scanning of papers.

2.3 This software could help those teachers who have fully loaded school works.

2.4 Easy to access from its features and services.

2.5 It has the ability to customize the number of items each test papers.

2.6 Better accuracy.

2.7 Easy to use. User-Friendly.

2.8 The application can provide Data Analytics.

Sub-Problem No.3 what will be the formulated recommendation to enhance the software?

3.1 It should have True or False choices in the bubble sheet

3.2 Make the app available for IOS (or other mobile OS)

3.3 Improve the ability to recognize fast the view finders in the papers.

3.4 The application should have option to identify the correct answer either to input or scan the key.

CONCLUSIONS

The researchers were able to arrive at these conclusions based on the findings of the studying.

1. The researchers found out according to the answers of the respondents, the system seems user-friendly.

2. The system is easy to understand according to the findings of the respondents.

3. This systems beneficial to the students in terms of the availability of their professors or teachers whenever they have queries that need to be answered.

4. The efficiency of the system like its advantages, interruptions and security are all also in neutral state according to the respondents.

RECOMMENDATION

The future researchers can use this as a guide for their new innovations regarding automation test checker .This software application is built to check subjective answers in an examination and to allocate marks to the user after verifying the answer. The system requires you to capture the original answer for the system.

The future researchers can improve the full functionality of the application and make it more easy to use and easy to identify.

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ASSIMILATION ON THE PROPOSED DESIGN MECHANISM OF A 3- WAY HACKSAW USING 12 V DC SOURCE

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INTRODUCTION

A saw is a hand-held tool used for cutting different kinds of materials such as wood, pack metal pipes and rods. A saw that normally cuts metals is call a hacksaw while the one that is being used for cutting woods is bow saw. The saw was one of the first great invention way back the Metal Age. Documents of saws made from copper have been recorder as early as 3,100–2,686 BC. One of the first appearance of saws during Egyptians history or four thousand years ago was a metal-curving knife. Innovations has been made, saws were curve of teeth projecting only one side. It worked only on pull stoke. The modern saws are crafted with an alternating set of teeth. Archeologically speaking, saws has been used back to prehistory and possibly evolved from bone tools, along with axe and chisel.

Historically, though there is no evidence of the type of the saw used, Egyptians were able to saw hard stone. The blade was probably toothless and rubbed on an abrasive material such as moistened quartz sand. Great Pyramid had marked of saw of 7 1/2 -foot granite copper.

Saws were also made from bronze and iron. During the Bronze Age, saws become prevalent in cutting wood materials. The saws were hammered with short teeth and resemble the modern saw today. In mid-7th century BC, Romans developed saw iron and made some innovations like adding rib to the back of the saw for efficient used. It resembles the modern hacksaw of today’s era. In the 1880s by George N. Clemson, a founder of Clemson Bros, developed saws for cutting metals. He steered trials in altering the shape of the teeth, dimension and styles of set of the blade.

Issues in cutting-off of materials to sizes have been one of the problems of metal manufacturing industry. More often than not, sawing is the first process being done in a bar stock. Heavy-duty machines provide cost effective means of sawing wide range of metal materials and stocks. Using such machines can increase production and lessen time and labor in this crucial operation.

A hacksaw is a hand-held tool accustomed to cut materials like metal pipes and rods. It is comprised of a handle made from metal or plastic, detachable blades structured with sharp teeth along its outer edge. Mostly, a hacksaw consists of a metal C-shaped frame that resembles a downward facing. A handle of plastic wood or metal is typically affixed to one end of frame. The frame can be adjustable to accommodate adjustable pegs that can be tightened to secure a blade and either way to loosened to remove it. Hacksaw blades are long thin strips to hardened steel that feature a row of teeth along the cutting edge. A device that when applies force, changes the direction of a force or changes the strength of a force, in order to perform a task, generally involving work done on a load of metal or rod. Machines are often designed to yield a high mechanical/electrical advantage to reduce the effort needed to do work. A simple machine wheel, a lever or an inclined plane. All other machines can be built using combination of simple machines.

Most hacksaw is hand saws with a C-shaped frame that hold a blade under tension. Such hacksaw has a handle that is usually a pistol grip, with pins for attaching a narrow disposable blade. The frames may also be adjustable to accommodate different sizes of blades. A screw or other mechanism is used to put the thin blade under tension. The blade is mounted in a way that the teeth of the blade are facing away from the handle. It works by a push and pull stroke.

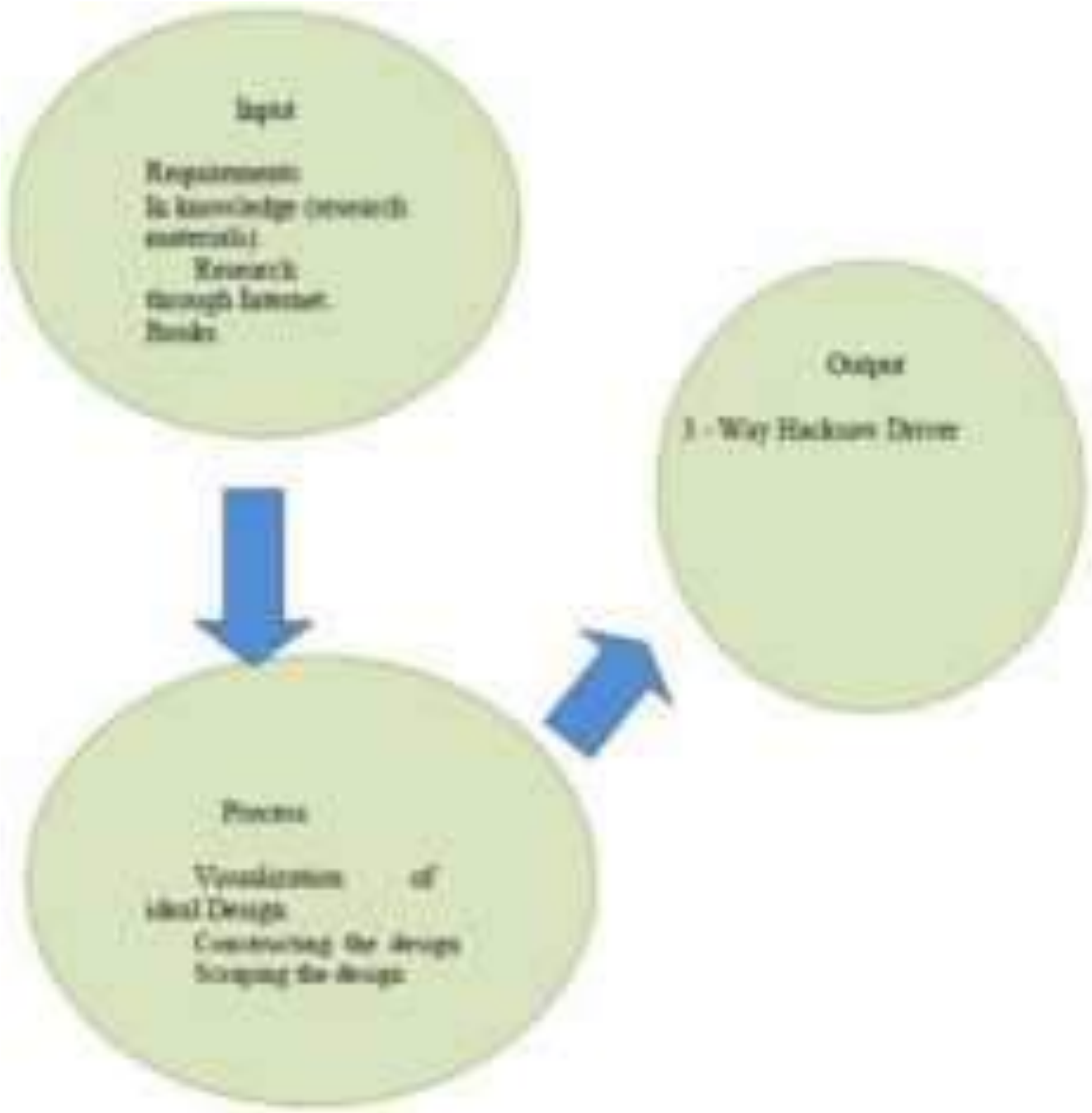
Three -Way Hacksaw cutting machines are used to cut large sections of metal shafts and rods. Therefore, an automatic Three-Way Hacksaw cutting machine is used to carry out the difficult and time-consuming work of cutting metals. This automatic Three-Way Hacksaw machine is considered as an automatic machine because there is no need for the operator to be there to provide the reciprocating motion for upwards and downwards force on the workplace in order to cut metal or rod. Once the operator has fed the work piece until the required length in the machine, the machine will then cut until the work-piece has been completely cut into desire piece or length .The automatic Three Way Hacksaw machine, though being able to cut the metal shaft or rod without requiring any human effort or intervention to cut, does required a human intervention to feed the work-piece with actual measurements. It also lessens vibrations and jerking making it more suitable for mass production of cut metals.

METHODOLOGY

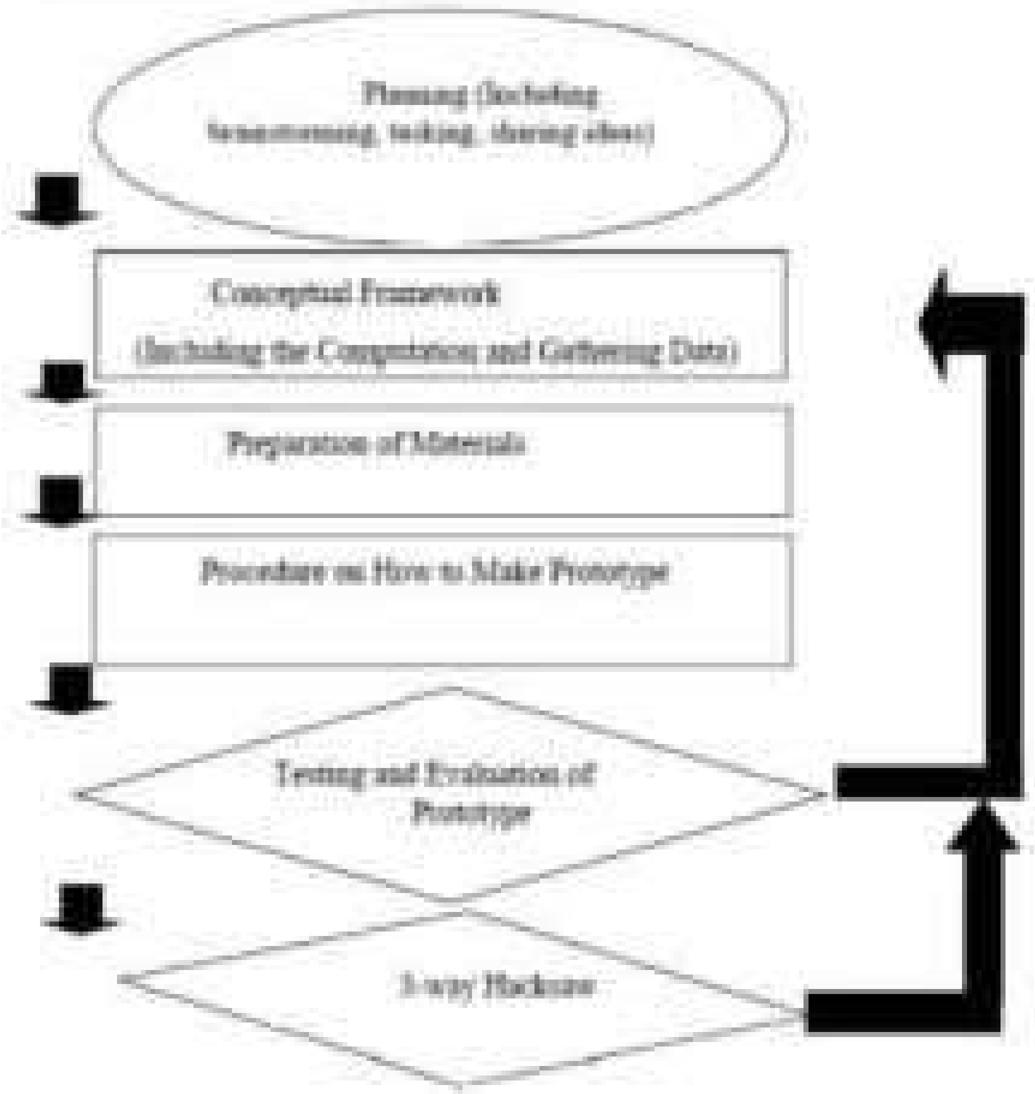
The study was made used of developmental method of research to determine the abilities and capabilities of 3- way hacksaw using 12v DC Source. Developmental research has been defined as the systematic study of designing, developing and evaluating instructional programs, processes, and products that must meet the criteria of internal consistency and effectiveness.

The design of a Three Way Hacksaw using 12V DC Source cutting machine involves the initial stages of concepts and ideas for design purposes. The concepts of an automatic Three-Way Hacksaw cutting, use of study and research were decided and finally one has chosen after evaluating on basis of complexity, ease and fabrication and construction. For cutting operation to be done the hacksaw blade should be of harder material than material to be cut. So the saw or saw blade is important component in consideration for high rates of cutting. Its gives a solution for there is no need to measure each and every rod for cutting to be able to achieve mass production, to reduce man power, to increase efficiency of plant, to reduce work load, to reduce the production cost .The project consists of a frame on which the hacksaw blades are mounted. The hacksaw blades are mounted on the 3 sides of the frame. The triangular plate is mounted in the center of the frame which is operated by a motor. The power to the motor is given with the help of an AC supply. The connecting rods are used to connect the wheel and to the hacksaw blades. The mechanism is used to convert the motion into fast rotary motion .When the motor is switched on, the power from the motor is delivered to the wheel. The wheel rotates such that the hack saw blades also rotate. The work pieces help by the machine firmly and the entire system is switched on.

The design of a Three-Way Hacksaw using 12V DC Source cutting machine involves the initial stages, concept design and purpose.



EVALUATION PROCEDURE



LIST OF MATERIALS FOR CONSTRUCTING 3 WAY HACKSAW

- Hacksaw
- Motor (washing Machine)
- Capacitor 10uF,450V)
- Flat Bar
- Angle Bar
- Bolts and Nuts
- C-clamp
- Welding Electrode
- Drilling Machine
- Grinder
- Welding Machine
- Copper wires
- Safety Breaker
- Plug

PROCEDURE ON HOW TO MAKE PROTOTYPE OF 3 WAY HACKSAW

1. Assemble of the base frame using angle bar or metal sheet by welding the metal and creating a triangular base frame.

2. Make a support holder for DC motor at the bottom part of the base frame.

3. Put a 15 cm metal bar on the top at the middle of every edges of the frame horizontally.

4. After creating the frame, assemble the clams for the rods at the hacksaw handle.

5. Assemble two support rod that hold the hacksaw handle clam to move it forward and backward chasing the movement of hacksaw.

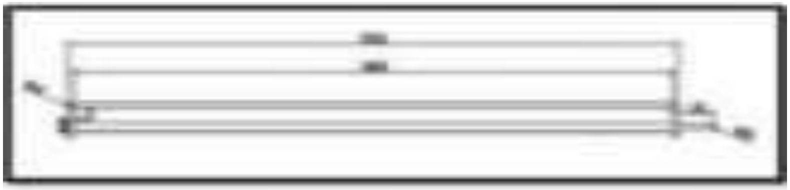
6. Make a support rod holder and fixed it at 15 cm metal bar on the top edge of the frame.

7. Then put the Dc motor on the base frame and fixed it as needed.

8. Assemble a disc that fitted on the shaft of motor the internal diameter of the disc is the same as the diameter of the shaft.

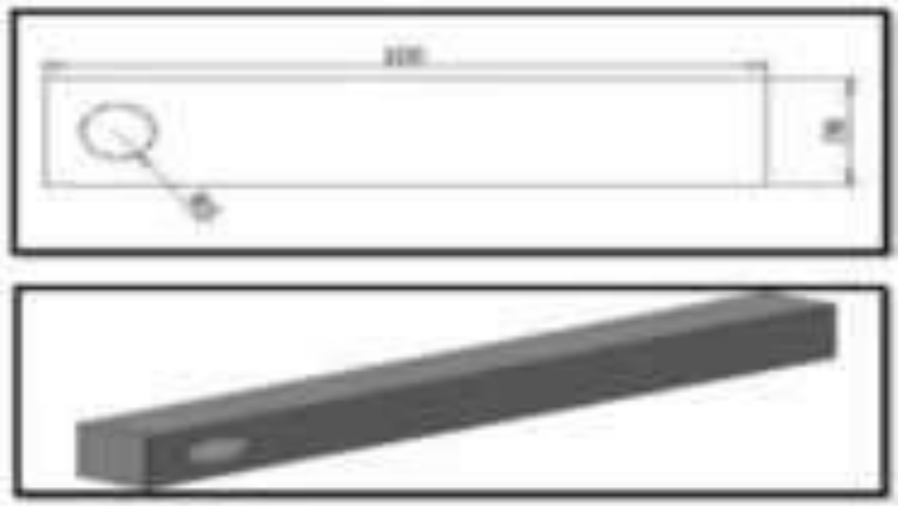
PROJECT STRUCTURAL ORGANIZATION

1. Make a two support rods that hold the hacksaw handle clam to move it forward and backward chasing the movement of the hacksaw.



2. Blade should fit on the frame; the standard length of frame is 300 mm and its end radius is 3 mm its thickness is very small. One side of blade has cutting edge.

3. Connect the first hacksaw frame and eccentric center of disc. The link is either round or rectangular shape. The hole is cut at its both end for fit into the buckle shaft element.



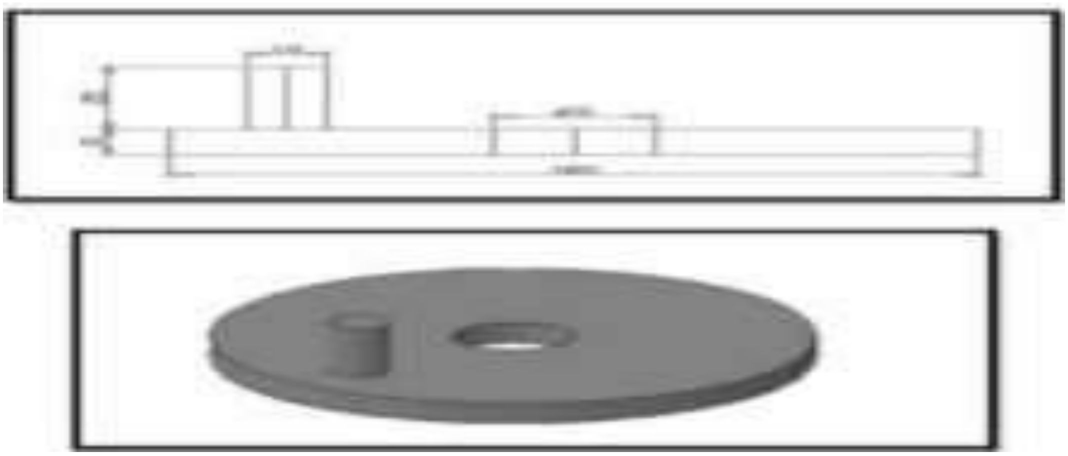
4. Connect the second hacksaw frame and eccentric center of disc. The shape of its link is the same as the first link.

5. Connect the third hacksaw frame and eccentric center of disc. The shape of its link is the same as the first link.

6. Fix link the eccentric center of disc known as a forth link. The shape of its link is cylinder type. It rotates as the rotation of disc.

7. Electric motor is fit vertically on base due to that the shaft rotates vertically speed of motor slow. Bolt is used for fitting the motor.

8. Hollow disc is fitted on the shaft of motor the internal diameter of disc is same as the diameter of the shaft. The cylindrical shape metal bar is fit on the eccentric center of disc this is known as the fix link.



9. Vice is used for fitting the job. Vice is fit on the base frame by the extension of pipe.

Generally, vice is made for the iron metal and to the subject being cut.

10. Buckle is use for proper movement of connecting rod, connecting rod was connected with hacksaw and this buckle.

11. The base frame is made from the metal sheet, the shape of its frame is triangular, square or rectangular type. Support pipe and pipe for fit the vice is provided the base frames though the extension of pipe by application of welding process. Motor is fit at the middle of the frame. Function of frame is to provide the support of all the mechanism.

Figure: Prototype 3-way Hacksaw using 12 V DC source

RESULTS AND DISCUSSIONS

This research is entitled “Assimilation on the Design Mechanism of 3-Way Hacksaw using 12V DC source”. A hacksaw is a fine-toothed saw, originally and mainly made for cutting metal. The equivalent saw for cutting wood usually called bow saw. Most hacksaws are hand saws with a C-shaped frame that holds a blade under tension. Such hacksaws have a handle, usually a pistol grip, with pins for attaching a narrow disposable blade. Hacksaws were originally and principally made for cutting metal, but can also cut various other material, such as plastic and wood: for example, plumbers and electricians often cut plastic pipe and plastics conduit.

The aims is to make a device that will use as less effort to produce more and uniform cutting of PVC pipes , metals and woods. This model will overcome the traditional hacksaw which done material cutting of single piece at particular times interval and also fulfills the need of more material cutting amount to mass production. This device works significant with minimum vibrations and jerks. Hence, the purposed of this model device will be welcome by many industries due to compactness and efficiency.

On the actual testing of the prototype, the capacity power and a measured speed of the motor are 66 watts and 3200 rpm respectively. From the given speed and capacity of power, the Torque has been computed and is equal to 1.695424×10^{-3} KN-m. The researchers tried to get the rpm in consecutive number of loads, and the formula being used for computation of power was P=2 TN. At first testing of load, by using one arm of the hacksaw, the speed is around 225 rpm and the power is 454 watts. Then in the second testing by using two arm of hacksaw the resulting speed is 150 rpm, the computed power is 30.87 watts. The last try with three arm the speed is 129 rpm and the computed watts is 26.

During the first testing, the used of 12 volts battery to run the 3-way hacksaw. The motor could not run the 3 -way hacksaw but the 12-volts battery only allowed the hacksaw to move in slow motion.

At the second testing, the used of a 24 volts battery was to run the 3-way hacksaw. It results to a relatively faster movement of hacksaw than the 12volts. It could cut a certain material such as copper or PVC tube with a minimum diameter of 10 mm at an average time of 8-10 minutes. The objectives of the experiment have been achieved but not completely, but all the parameter required has been solved and calculated accordingly. For cutting operation to be done the hacksaw blade should be of harder material than material to be cut. The well-known power hacksaw machine is powered by electric motor. So the saw or saw blade is important component in consideration for high rates of cutting to be done.

CONCLUSION AND RECOMMENDATION

The study concluded that by using the 12 V DC source, the 3-way automated hacksaw can do the job more efficient and by more refinement of the study and its prototype, the objective can be more attainable. Increasing the voltage, can result in relatively faster movement of the hacksaw.

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A.M.A.Z.E – Android-based Malling Active Zoning Equipment

Sherwin Keith T. Rivera

INTRODUCTION

In this era, technology has been swiftly changing and intensifying in every field. It gave the world a new appearance through its progressions and computerizations, with each passing day, it is without a doubt striking the world with huge impact.

Due to the constant changes in the technology, the reliance to it has taken over the society. Technology has transformed the way we live our lives in a way making everything much easier and faster. In line with this progress, technology makes its way and is being incorporated with businesses.

The World Wide Web plays a big part on these technological innovations, being able to connect with your clients around the globe with ease, would simply signify the efficiency of your daily business transactions.

Philippine Shopping Malls are the second home for Filipinos. For decades, families, friends, couples and typical shoppers visit the malls for strolling, shopping, meetings and sometimes for comfort and ambience. These malls provide assistance to customers thru shopping, multiple services and even information assistance.

A Touch Screen Digital Directory is an electronic equipment that assists mall customers in finding establishments within the mall's vicinity. It serves as an auxiliary information desk for customers when the mall has only a few of the above mentioned. Having these types of digital support, the mall's customers will be able to find specific establishments within the mall with just a couple of taps on the screen.

MATERIALS AND METHODS

Hardware and Software specifications

Software

System Development Software

- Android Studio
- Brackets
- Adobe Photoshop

System Implementation Software

- Android Studio Emulator
- NOX Android Emulator

Hardware

Generic Android Device with active internet connection

METHODOLOGY

Scrum Framework | Agile

Scrum is an iterative and incremental agile software development framework for handling product development. It defines "a flexible, rounded product development strategy where a development team works as a part to reach a common goal", challenges expectations of the "traditional, sequential approach" to product development, and enables teams to self-organize by encouraging physical co-location or close online collaboration of all team members, as well as daily face-to-face communication among all team members and disciplines involved.

SCRUM Artifacts

Product Backlog – Is a well-organized list of everything that is known to be required in the application development. It is the single source of requirements for any changes to be made to the product. The Project Manager is responsible for the Product Backlog, as well as its contents, ordering and priorities.

Sprint Backlog - Is the set of Product Backlog items organized by the Scrum Master and selected for the Sprint, plus a plan for delivering the product Increment and grasping the Sprint Goal. The Sprint Backlog is also known as an estimate of the Development Team about what modular functionality will be in the next *Increment* and the work needed to deliver that functionality into a "Done" module or product.

Increment - The Increment is the sum of all the Product Backlog items accomplished during a Sprint and the value of the increments of all earlier Sprints. At the end of a Sprint, the new Increment must be "Done," which means it must be in useable condition and meet the Scrum Team's definition of "Done."

RESULTS AND DISCUSSION

1 – Poor *5 – Satisfied* *10 – Excellent*

Assistance Medium	Customer Satisfaction	Mall Management	Mall Employees
Information Assistance Desk	6	6	4
On screen directory	8	7	7
M.A.Z.E. Application	9	9	9

Table 1.0

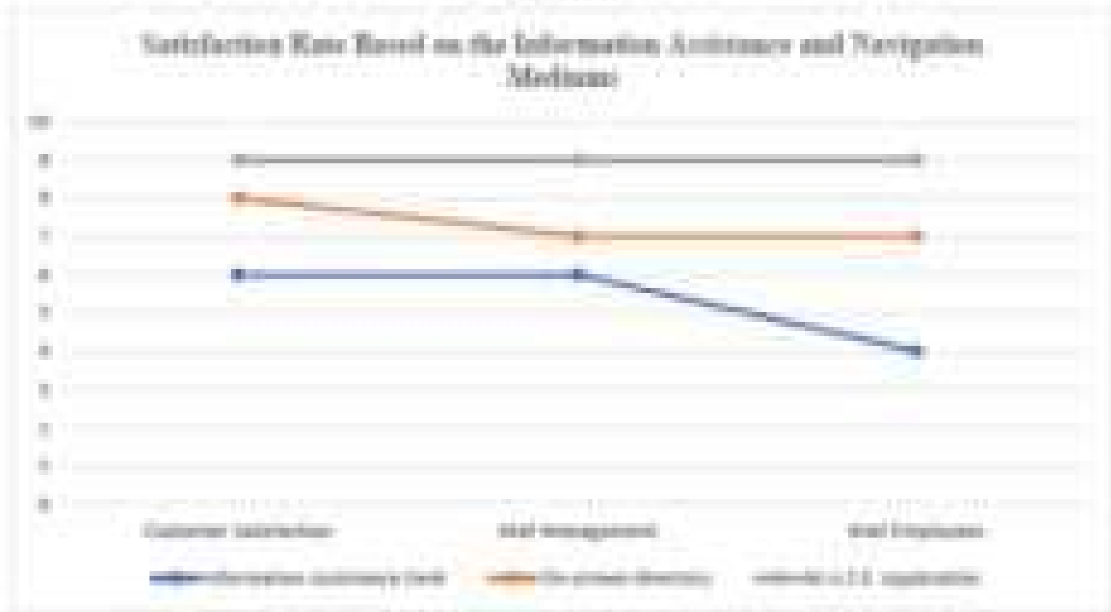

Fig. 1.0

Figure 1.0 shows the data taken from Table 1.0 which states the following:

1. Using an Information Assistance Desk, the customer satisfaction score is 6 out of 10, while mall management's score is 6 out of 10 and mall employee's satisfaction rate is 4 out of 10.

2. Using an electronic on-screen display device, the customer satisfaction rate is 8 out of 10, the mall management's satisfaction rate is 7 out of 10 and the mall employee's satisfaction rate is 7 out of 10.

3. Using the A.M.A.Z.E. application, the customer satisfaction rate is 9 out of 10, the mall management's satisfaction rate is 9 out of 10 and the mall employee's satisfaction rate is also 9 out of 10.

Therefore, the graph has visually explained the relevant change on three areas relevant to the shopping mall's information dissemination and navigation system.

CONCLUSION

With the fast-paced developments in technology, more and more organizations are adapting and making their operations quick and efficient through computerization. Thus, shopping malls providing unique and efficient services to their customers also need to innovate not only to be more productive and profitable, but to be trendy as well.

An Android-based Malling Active Zoning Equipment (A.M.A.Z.E) is an android application that serves as a portable Touch Screen Digital Directory and information desk for Shopping Malls and other establishments related to it.

Furthermore, the mobile application is so versatile that anyone with an Android Device will be able to download the application with ease and use it with convenience and at the comfort of the palm of their hands.

In summary, An Android-based Malling Active Zoning Equipment will provide a wide range of solution in terms for mall directory and shopping navigation to mall customers.

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SIGNALING LIGHT FOR BICYCLE USING PIC MICROCONTROLLER

Ador G. Utulo
Bernard C. Fabro

INTRODUCTION

The everyday traffic experienced by motorist everyday within Metro Manila and other urbanized cities in the Philippines and the increased in prices of petroleum products, has made biking an alternative mode of transportation. Not only because of health benefits it gives but it also reduced traffic congestions and cuts down daily transportation expenses. With the number of bikers increasing, bicycle-related accidents also increased based on the data recorded by the Metro Manila Development Authority. The most common cause of accident among bicycle riders is that they are unpredictable as to which direction they would go. Therefore, the need for a signaling system designed for bicycles, like that of other motor vehicles, is needed. A 'Signaling Lights for Bicycle' will benefit both cyclist and the society. Other benefit includes reducing traffic congestion and pollution. In many situations, bicycles can now safely and easily access intersections. However, in many instances they are still required to join vehicular traffic and use pedestrian to cross at signal intersection. They inform other road users our intent to turn left, right or stop. There are several regulations and standards that must comply with while designing Signal Lights on to a vehicle.

Basic signaling or hand gestures for bicycle riders are evidently not practiced by most bikers which make them unpredictable on roads especially on intersections. 'Signaling Lights for Bicycle' are used to indicate the intent of left turn or right turn to other users of the road. A bike signaling light can make cycling more convenient and safer for the rider, by lighting up the path in front of them and helping to make the bike more visible to drivers and other cyclists, and a taillight can offer increased visibility from behind, but the signal lights adds several other safety features to the mix. The signaling lights are designed to work together as a set of front and back light, controlled by a push buttons that are connected to the Peripheral Interface Controller or PIC attached on the handlebars of bicycle, which allows the rider to signal their intentions when turning and to notify those behind the bike when the rider is applying the brakes and slowing down.

Signaling light for bicycle using PIC, it composed with different varieties, such as: Peripheral Interface Controller or PIC. This microcontroller is used to instruct what the function that the components will do is. The signal lights for bicycle will only activates when the push button is pressed, then it will trigger the light emitting diode or LED to light on their specific direction or route.

The objective of this project is to create a signal light for bicycle that will be attached on back of the bicycle's seat post and it would have left and right signal to assist the rider make safe turns and warn traffic of their presence. Safety of the rider seemed like the huge priority of this project, so we tried to mold design around the safety concept. Our goal was to create a very simple yet effective signal light that is portable enough to have ability to switch bicycles and deliver maximum safety. This project aims to increase the safety of cyclist, motor vehicle and road user and reduce the risk of injury or death number of bicyclist while riding. It was determined that the most important aspect of vehicle lighting was being seen by and communication with other motorists, bicyclists and road users.

This device will be able to gives signal to the other road users using push buttons, a rocker switch, a limit switch and a light emitting diode. We have four (4) push buttons. The first push button is used to trigger the LED to give signal that the rider is going to turn left. While the second push button is used to trigger the LED to give signal that the rider is going to turn right. And the third push button is used to trigger the LED to give signal that the rider is in danger or in hazard. And the fourth push button is used to reset the output LED of Signal lights for bicycle. Lastly, Limit Switch used to trigger if the rider is going to stop or brake. The delimitation of this device is that it only focuses on signal lights of the bicycle. Instead of the usual hand gestures/signals practiced by bikers, a tail light signaling system is recommended. The researchers did not use or install any bicycle horn. The purpose of our study is to just give a signal by using LEDs and switches. This device also has no sensor that will be able to sense the direction of the bicycle.

MATERIALS AND METHODS

The device consists of two parts. The first one is a set of brake lights and the second is a turn signal indicator that attach to the bicycle to provide more safety light as motor vehicle. The set of brake lights consist of 3 groups of Light Emitting Diodes or (LED), the brake, right and left turn lights. The right and left turn lights are design in such a way that is looks like an arrow to easily indicate the bicyclist direction. We used a big and more enough Light Emitting Diode or LED matrix on a back of a bicycle which could be easily seen day and night by cars and pedestrians, The Light Emitting Diode or LED turn signal will controlled by 5 button mounted on the front handle bars of the bicycle. The 5 button are for turn right, turn left, break or stop, hazard and reset button. We wire each group of Light Emitting Diode or LEDS in parallel. Separating them between left and right and break, creating three separated Light Emitting Diode or LED circuit. With the wiring complete, we check the continuity of each circuit to ensure functionality. To activate the turn right signal, the bicyclist needs to push the button for the right turn. For the activation of the turn left signal, the bicyclist needs to push the button for the turn left signal. In case of activating the hazard signal, the bicyclist just need to push the hazard button. While the brake/stop signal light can be activated while the turn right, left and hazard signal is still activated. In case of switching indicator direction from left to right, the bicyclist just needs to push the turn right button and vice versa. It also applies in case of switching from turn left or right signal to hazard signal. The circuit is water proof and everything is held in place.

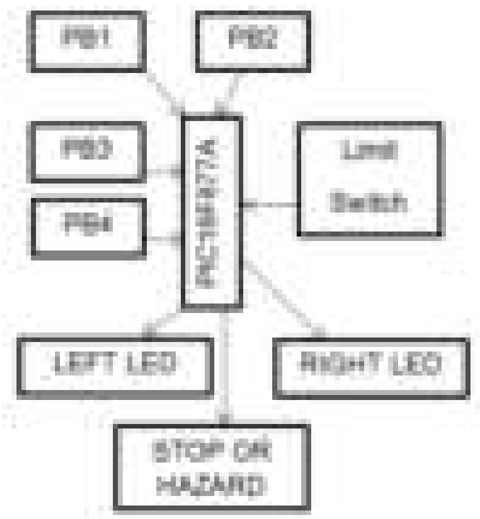

Figure 1: The Block Diagram of the design

Figure 1: Illustrate the block diagram of bike signaling using PIC16F877A Microcontroller and the flow connection of component such as, 4 push buttons 1 limit switch and 1 Peripheral Interface Controller or PIC.

The push button (1), push button (2), push button (3), push button (4) and limit switch is connected to the Peripheral Interface Controller with the number of 16F877A. When the push

button (1) is pressed or triggered the light emitting diode that indicates left is will turn on then when the push button (2) is pressed or triggered the light emitting diode that indicates stop will be turn on then when the push button (3) is pressed or triggered the light emitting diode that indicates right will be turn on then when the push button (4) is pressed or triggered all the output will be reset. The limit switch works when you hold the break of the bicycle the stop indicator will automatically lights on and it is physically connected to the brake handle of the bicycle.

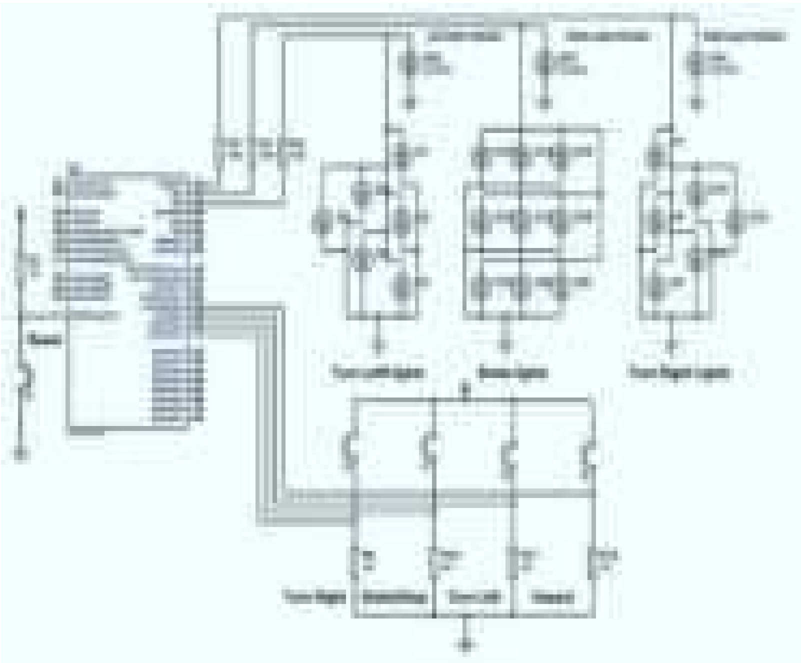

***Figure 2*:** The Schematic Diagram of the system

Figure 2: shown the schematic diagram of bicycle signaling light using PIC16F877A Microcontroller and the wiring connection of each component to each component and to the microcontroller. The resistors push buttons and rock switch is physically connected to PIC16F877A Microcontroller. The light-emitting diode (LED) is connected to the resistor. The resistor and push buttons is connected to the Peripheral Interface Controller or PIC. All the output Light Emitting is connected to ground. Then the pin 1 of microcontroller is connected to the positive of the battery. The user touch interface and 9 Volts battery charger provide the basic inputs of the figure 1. Employing a rechargeable battery implies a 9 Volts battery charger as an input to the system. The brake and turn signal activate upon the combination of user input. Bicycle rider performance has important application to signal timing. The system uses the PIC16F877A because it’s affordable. There are multiple input buttons in a system. There is a pair of buttons to input left or right turn, the other button specially customized to fit on brakes.

Construction of the Project

The following steps are implemented in constructing the said device.

1. Research and gathering of data related in vehicle signal in order for us to know what we are going to do first and what are the components needed to create this device.

2. Collecting of all the components, materials, and tools to be needed in the project.

3. Test the components if it is working.

4. Constructing of program for the project and debug the codes if it has error.

5. Upload the codes in the PIC16F877A Microcontroller.

6. Create a schematic diagram for signaling light for bicycle using PIC16F877A.

7. Plot all the components on breadboard in order to test, analyze and configure if the circuit is totally working and well-function.

8. After testing the components on breadboard, you can now transfer the components needed to universal printed circuit board or (PCB3).

9. Put the component on its right place and Solder it properly using soldering iron.

10. After completing the circuit, you can now test the connections of the components for you to know if there's a problem in the device.

11. Fix all the problems if the device had an error or problem.

Components Used and Function to the device:

Battery – it will give a source of power to the devices.

Push button – this component is connected to PIC that will be pressed the rider to trigger the desired output.

LED – It serves as the indicator of the output of this device and it is visible to the road user as notify.

Stranded Wires – this is the tool that interconnects each of the components with each other and this is the component that gives the voltage flow in order to have a power source.

PCB board – this is where your circuit is mounted and placed your components and soldered it so that it will give each component a connection to each other.

PIC16F877A Microcontroller – this peripheral interface controller is the microcontroller where your codes will be uploaded after you compile it. This will serve as the brain of your device because this component is used to instruct what the function that the components will do.

Resistor – These components used to resist the power source for the desired voltage output.

Limit switch – we used the limit switch to trigger the stop indicator output when the bicycle will break.

Rocker switch – we used this component to activate our device so that the power source will flow. It also used as the indicator if our device is turn on or off.

RESULTS AND DISCUSSION

Signal Lights make the vehicle and its driver's intent clearly visible to other road users. For example, brake lights show the driver's intent to slow or stop. Turn signal shows the driver's intent to change lane or direction. There are two colors for tail lights, the one of this is red the indicators when the driver's intent to stop and the two lights is orange it indicates when the driver's intent to turn right, turn left or turn in hazard. Digital Signal carries only two state, zero or one, hence in the square wave, if lower edge consider reference zero level, then the higher level is considered as one, in all digital ICs (I/O, Memory, Buffer or CPU etc., on mother board) operates on, the common reference clock (square wave), to synchronize the digital operations, of all to gather. We often need a pulse output from the PIC with a variable frequency or mark/space ratio (MSR). PWM (pulse width modulation) is most often used to control the power delivered to a resistive load via a current switch. Measuring pulse feedback period or frequency allows motor speed control. If a square wave has a DC offset equal to its amplitude, it becomes a pulse waveform. If a solid-state power switch is used to drive a current load, it can be switched on and off at reasonably high frequency. This allows the power output level to be controlled by varying the ratio of the 'on' and the 'off' time, because the load power consumption will be determined by the average level of the switched current. Thus, when using PWM, a higher mark/space ratio, or duty cycle, will result in more power delivered to the load.

Most PIC MCUs incorporate a PWM operating mode associated with one of the hardware timers. In the 16F877A, Timer2 (TMR2 register), an 8-bit counter, is used conjunction with associated registers that store the overall cycle period count and the duty cycle (high period) count.

Basic Operation of the Signaling Light for Bicycle using PIC

First, the bicyclist needs to switch on the device. When activating the turn right, left or hazard signal of the device, the bicyclist needs to push the button designated for each operation. In changing the operation to another operation, the bicyclist needs to push the designated button for their next operation. The device can change operation by pushing the other button. Example from operation of right signal, the bicyclist can turn the device to left signal or in hazard operation. Also while in left signal operation, the bicyclist can change the operation to left signal or hazard signal by pressing the designated button for that said operation. It can also apply in hazard operation; the bicyclist can change operation from hazard to right signal or left signal operation. While the brake operation, it can apply in any scenario or cases. In terms of stopping the current operation, the bicyclist is just need to push the reset button. The reset button can stop any operation regardless of it cases. In case of battery near to empty or the device no longer power up, the device needs to charge.

SUMMARY AND CONCLUSION

Car-bike collision seldom involve bicyclist getting hit from the behind by motorists, the argument goes. Bike Safe is an advice that allows bicyclist to indicate that they are making turn without having to take their hand off the handle bars. The project mounts to the seat post of the bicycle where the bicyclist controls the flashing amber light emitting diode or LED lights from the handle bar. This project creates safer environments for people to bike on the road and to provide more universal signaling system for bikes. Bicyclist will not have to take their hands off the handle bars to signal on the road when making turn or changing its direction. With this device, Bicyclist will only have to press a button with their thumb, thus, creating a safer, reliable more stable bike ride. This also provides a more obvious alert to motorists that are sharing the road because of this device is design in such a way that it looks like the signaling found in the vehicles or motorcycles. This product should be low cost to produce and should also sell at an affordable price in the consumer market. From the above, it is evident the lighting equipment required on bicycles should have a role in making the road ahead visible to the cyclist and in making the cyclist visually conspicuous to other road users by day and night.

The lighting of bicycles and of cycle tracks and cycle lanes needs to be developed so as to enhance the visibility and conspicuity of cyclists, by both day and night. This development is necessary because it is not at all clear that the current lighting regulations and recommendations are the best that can be achieved or are even adequate. Research into the visibility provided by bicycle lighting and the conspicuity of cyclists using different forms of bicycle lighting, by day and night, on lit and unlit roads, is needed if lighting's contribution to the safety of cyclists is to be realized. Based on these findings, road safety awareness among bicycle riders should also be given priority on urbanized cities.

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Call For Bike Lanes Intensifies As Number of Bike-Related Road Accidents Rise Top Gear Philippines (2017)

PANDAN FLAVORED COCO PEARL MACAROONS

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INTRODUCTION

A cookie is a baked, flat, sweet cake. It is originally called “little cakes” usually contains flour, sugar, and oil or fat. The term “cookie” is normally used to describe the chewier ones. It comes in different varieties of flavors with the use of a wide array of ingredients including sugar, spice, chocolate, butter, nuts or dried fruits. The earliest cookie is thought to date back 7th century Persia A.D. The square short-cookie enriched with egg yolks and spices, and then baked on parchment paper was made on 1956.

A macaroon is a type of small, round cookie typically made from ground almonds, coconut, and/or other nuts or even potato, with sugar, egg white, and sometimes flavorings such as honey, vanilla, spices, food coloring, glace cherries, jam and/or a chocolate coating. Some recipes call for sweetened condensed milk. Macaroons are often baked on edible rice paper placed on a baking tray.

The consensus is that the word “macaroon” comes from the Italian word “ammaccare” which means to crush. This references the almond paste which historically was its main ingredient. Egg whites and sugar were then added to create the cookie. Macaroon recipes also appeared in Syria in the 15th century under the name Louzieh, derived from "Louz" which means almond in Arabic. Since the cookie has no flour or leavening, Italian Jews adapted the recipe in order to enjoy it on Pesach. The exact time when this occurred is unclear. By the late 19th century the almond was replaced with coconut as the almond cookie tended to be more fragile to make as well as transport. Desiccated or shredded and dried coconuts were found to be easier to pack without spoilage.

Screw pine (Pandanus amaryllifolius) also known as pandan leaves are widely known in South Asia and Southeast Asia cooking. It is also used to perfume rice dishes because of its aroma. It has an anti-inflammatory, anti-hyperlipidemia, anti-tubercular, anti-bacterial and uterine stimulant. It also treats ear pains, headaches, and wounds, eases chest pains, solves several skin problems, used as a laxative for children, treats leprosy, strengthens gums and reduces stomach spasms.

In order to add a creamy flavor, Coconut Pearl is used. Coconut Pearl is the ball like spongy coconut embryo floating in the coconut water. Coconut pearl is great for immunity. It has anti-viral, anti-fungal, anti-parasitic and anti-bacterial properties. It is also good for the skin and cures skin infections. It keeps the hair and skin youthful and prevents aging and wrinkles, skin sagging and sun damage. It can also help those people who suffer from kidney diseases and bladder infections.

Today’s bakeshops are offering a variety of products not only for health-conscious people but also for those who are craving for classic indulgence.

Therefore, a new product called Pandan Flavored Coco Pearl Macaroons was formulated. It will be added in the variety of macaroon. The researchers conducted the study of macaroon that used Coco Pearl as the main ingredient that is not only mouthwatering and nutritious but can also help to improve the health of the consumer.

METHODOLOGY

This study made use of the descriptive method of research to determine the potential of Pandan Flavored Coco Pearl Macaroons. Descriptive research involves collecting data in order to test hypotheses or answer questions regarding the subjects of the study. In contrast with the qualitative approach, the data are numerical. The data are typically collected through a questionnaire, an interview, or through observation. In descriptive research, the investigator reports the numerical results for one or more variables on the subject of the study.

The sampling technique that was used is purposive sampling. A purposive sample is a non-probability sample that is selected based on characteristics of a population and the objective of the study."

RESULTS AND DISCUSSION

Sub Problem No 1. What are the ingredients, tools, utensils, and procedure in the preparation of Pandan Flavored Coco Pearl Macaroons?

Table 1

Ingredients Used in the Preparation of Pandan Flavored Coco Pearl Macaroons

Quantity	Unit	Specification	Unit Cost	Extended Cost
240	g	Coco Pearl	75.00	25.00/1pc
480	g	Desiccated Coconut	183.00	61.00/200g
180	g	Sugar	7.74	43.00/1000g
75	g	Butter	33.33	100.00/225g
2	pc	Eggs	14.00	7.00/1pc
10	ml	Pandan Extract	5.00	10.00/1pc
437.50	ml	Condensed Milk	108.00	54.00/300ml
120	g	Flour	20.00	20.00/120g
10	g	Baking Powder	1.45	29.00/200g
		Total	**447.52**	

Yield: 40 servings

Table 2

Tools and Utensils Used in the Preparation of Pandan Flavored Coco Pearl Macaroons

Quantity	Unit	Specification
1	Pc	Rubber Scraper
1	Set	Measuring cup
1	Set	Measuring spoon
2	pc	Baking pan
1	Pc	Scooper
1	Pc	Whisk
30	Pc	Mini Cupcake Liner
2	Pc	Mixing Bowl
1	Pc	Oven
1	Pc	Saucepan

Procedure in the Preparation of Pandan Flavored Coco Pearl Macaroons

1. Assemble all ingredients and utensils to be used in the preparation of Pandan Flavored Coco Pearl Macaroons.

2. Boil the Pandan Leaves to get the extract. Remove from the heat and let it cool. Then filter the mixture.

3. In a bowl, cream butter using a hand mixer on low speed. Add sugar and beat together until well blended and fluffy.

4. Add eggs one at a time, beating continuously.

5. Add condensed milk and pandan extract and continue to beat until blended.

6. In a medium bowl, combine flour and desiccated coconut. Add to the egg mixture and add food color. Beat until combined.

7. Scoop into paper-lined mini muffin pans and bake in a 350 F oven for about 20 to 20 minutes or until golden. Let cool for about 5 minutes.

Sub Problem No 2 How do the respondents assess the Quality Characteristics of Pandan Flavored Coco Pearl Macaroons?

Table 3

Quality Characteristics of Pandan Flavored Coco Pearl Macaroons

Criteria	Experts		Consumer		Composite		Rank
	WM	**VI**	**WM**	**VI**	**WM**	**VI**	
1. Appearance	4.30	E	4.20	E	4.25	E	4
2. Aroma	4.80	E	4.58	E	4.69	E	1
3. Taste	4.70	E	4.58	E	4.64	E	2
4. Texture	4.30	E	4.45	E	4.38	E	3
Overall Weighted Mean	**4.53**	**E**	**4.45**	**E**	**4.49**	**E**	

Legend:

Option	Range	Verbal Interpretation	Symbol
5	4.20 - 5.00	Excellent	E
4	3.40 - 4.19	Very Good	VG
3	2.60 - 3.39	Good	G
2	1.80 - 2.59	Poor	P
1	1.00 – 1.79	Very Poor	V

As depicted in Table 3, the assessment on the Quality Characteristics of Pandan Flavored Coco Pearl Macaroons rated as Excellent with an overall weighted mean of 4.49. All items rated as Excellent, namely; aroma with a composite weighted mean of 4.69 as rank 1; taste with a composite weighted mean of 4.64 as rank 2; texture with a composite weighted mean of 4.38 as rank 3; and appearance with a composite weighted mean of 4.25 as rank 4.

Further, the group of respondents' assessment on the Quality Characteristics of Pandan flavored Coco Pearl Macaroons rated as Excellent, these are Experts with an overall weighted mean of 4.53; and Consumers with an overall weighted mean of 4.45.

Sub Problem No 3 Is there a significant difference on the assessment of the two groups of the respondents on the Quality Characteristics of Pandan Flavored Coco Pearl Macaroons?

Table 4

Comparison of Assessment on the Quality Characteristics of Pandan Flavored Coco Pearl Macaroons

Df	t-value	critical value	Decision	Interpretation
48	0.04839	1.684	Accept Ho	Not Significant

Legend: @0.05 level of significance

As depicted in Table 4, the computed t-value on the Quality Characteristics of Pandan Flavored Coco Pearl Macaroons as assessed by experts and consumers is 0.04839 which is lower than the critical value of 1.648 with the degree of freedom of 48 at 0.05 level of significance. Hence, there is no significant difference on the assessment of Quality Characteristics of Pandan Flavored Coco Pearl Macaroons. Therefore, the hypothesis is accepted.

Sub Problem No 4 How do the respondents evaluate the acceptability of Pandan Flavored Coco Pearl Macaroons by the two groups of respondents?

Table 5

Acceptability of Pandan Flavored Coco Pearl Macaroons

Criteria	Experts		Consumer		Composite Weighted Mean		Rank
	WM	VI	WM	VI	WM	VI	
1. Appearance	4.30	HA	4.20	HA	4.25	HA	4
2. Aroma	4.80	HA	4.58	HA	4.69	HA	1
3. Taste	4.60	HA	4.58	HA	4.59	HA	2
4. Texture	4.20	HA	4.45	HA	4.33	HA	3
Overall Weighted Mean	**4.48**	**HA**	**4.45**	**HA**	**4.47**	**HA**	

Legend:

Options	**Verbal Interpretations**	**Equivalent Points**	**Symbol**
5	Highly Acceptable	4.20 – 5.00	HA
4	Acceptable	3.40 – 4.19	A
3	Moderately Acceptable	2.60 – 3.39	MA
2	Fairly Acceptable	1.80 – 2.59	FA
1	Not Acceptable	1.0 – 1.79	NA

As manifested in Table 5, the acceptability of Pandan Flavored Coco Pearl Macaroons rated as Highly Acceptable with an overall weighted mean of 4.47. All items rated as Highly Acceptable, such as aroma with a composite weighted mean of 4.69 as rank 1; taste with a composite weighted mean of 4.59 as rank 2; texture with a composite weighted mean of 4.33 as rank 3; and appearance with a composite weighted mean of 4.25 as rank 4.

Further, the group of respondents' acceptability of Pandan Flavored Coco Pearl Macaroons rated as Highly Acceptable, these are Experts with an overall weighted mean of 4.48; and Consumers with an overall weighted mean of 4.45.

Sub Problem No 5 Is there a significant difference as to the evaluation of the two group respondents on the acceptability of Pandan Flavored Coco Pearl Macaroons?

Table 6

Comparison of Assessment on the Acceptability of Pandan Flavored Coco Pearl Macaroons

Df	t-value	critical value	Decision	Interpretation
48	0.01506	1.684	Accept Ho	Not Significant

Legend: @0.05 level of significance

As manifested in Table 6, the computed t-value on the Acceptability of Pandan Flavored Coco Pearl Macaroons as assessed by experts and consumers is 0.01506 which is lower than the critical value of 1.648 with the degree of freedom of 48 at 0.05 level of significance. Hence, there is no significant difference on the assessment of Acceptability of Pandan Flavored Coco Pearl Macaroons. Therefore, the hypothesis is accepted.

Sub Problem No 6 What is the result of the nutrient analysis of Pandan Flavored Coco Pearl Macaroons?

Table 7

Result of the Nutrient Analysis of Pandan Flavored Coco Pearl Macaroons

ANALYTE per 100g	RESULTS	REFERENCE METHOD
Ash, g	1.6	AOAC 940.26A
Energy, kcal	461	Computed using Atwater Factors
Total Fat, g	24.7	Acid Hydrolysis (Soxhlet)
Total Carbohydrate, g	55.4	Computed by Difference
Total Sugars*, g	34.9	AOAC 968.28 (Modified)
Protein, g	4.2	Automated Kjeldahl Method (Buchi)
Moisture, %	14.1	AOAC 925.45 19th Edition

As manifested in the Table 7, Pandan Flavored Coco Pearl Macaroons contain; Ash, g (1.6), Energy, kcal (461), Total Fat, g (24.7), Total Carbohydrate, g (55.4), Total Sugars, g (34.9), Protein, g (4.2) and Moisture, % (14.1).

CONCLUSIONS, AND RECOMMENDATIONS

Based on the findings, the following conclusions were formulated.

1. Pandan leaves and Coco Pearl can be used as the main ingredient in the preparation of Macaroons.

2. Pandan Flavored Coco Pearl Macaroons was found to be excellent as assessed by the two groups of respondents.

3. The expert and consumer respondents share similar assessment on the quality characteristics of Pandan Flavored Coco Pearl Macaroons in terms of appearance, aroma, taste, and texture.

4. Pandan Flavored Coco Pearl Macaroons was highly acceptable to the two groups of respondents.

5. The expert and consumer respondents did not differ in their assessment on the level of acceptability of Pandan Flavored Coco Pearl Macaroons in terms of appearance, aroma, taste, and texture.

6. Pandan Flavored Coco Pearl Macaroons contain; Ash, g (1.6), Energy, kcal (461), Total Fat, g (24.7), Total Carbohydrate, g (55.4), Total Sugars, g (34.9), Protein, g (4.2) and Moisture, % (14.1).

In the light of the findings and conclusions, the following are strongly recommended.

1. Use the most accurate and proportional amount of ingredients to improve its quality characteristics and the level of acceptability.

2. Pandan Flavored Coco Pearl Macaroons has to be packed in a proper packaging material and should contain a best before seal as well as the nutritive value.

3. Standardized ingredients used. Keep on doing trial and error until the desired aroma, appearance, taste, quality and texture is attained or achieved.

4. The results of the study should be taken as a reference for future related study.

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Behavioral
Research

AN ASSESSMENT OF ENGLISH PROFICIENCY OF THE SECOND YEAR HIGH SCHOOL STUDENTS AS PERCEIVED BY THE TEACHERS OF THE DIVISION OF TAYTAY RIZAL

Rommuel L. Abanto

INTRODUCTION

Any language is very contextually driven. While it is also interactive dependent, it is possible to be able to read and not comprehend what was read. Which is why it is important to assess discreetly, as well as holistically.

In our globalized world, language education is of great importance because it is the mainstream of curriculum. For the past years, we saw the emergence of important trends in the field of second language teaching. These have been transmitted globally and proven to have influenced the learning of English in many countries of the world including the Philippines. Language is used as an international tool and teaching English is becoming an educational field that is worthwhile exploring if transmitted successfully.

It is also believed that learning English and learning it well are of prime importance. We can acknowledge that the first importance of learning English language is that it is a means to communicate in the interconnected and independent world.

Another importance of the language is that it creates a greater opportunity for a job. It cannot be denied that English is the language of communication in some government, in international business, in different professions and in many aspects of the lives of the people of the world. As we know, businesses today are targeting at quantities of employees; and knowing English and good at it, we will have more chances to get a job. Moreover, with an enough amount of knowledge in English, the possibility of promotion in position is even higher.

However, recent language test results released by the Integrated Data Processing Education Property Limited Philippines, an accredited group that administers the International English Language Testing System (IELTS) to Filipinos seeking to work and migrate abroad, showed that the Philippines is no longer the top English - speaking country in Asia. With an overall score of 6.71, Malaysia is now the No.1 in English Proficiency in Asia. The Philippines placed only second with 6.69, followed by Indonesia (5.99), India (5.79) and Thailand (5.71). This was gleaned from IELTS results in 2008, during which some 35,000 Filipinos – 70 percent of them nursing graduates applying for jobs abroad – took the language exam to evaluate their English Proficiency in reading, writing, speaking, and listening.

It is therefore claimed that students' poor command of English language and instruction depends upon the competence in the teaching profession and is a matter of the mastery of the subject and the ability to impart the lesson to the students.

The teacher, therefore, as the key factor in language should be fully aware of the fact that his/her performance and approach are of great importance for the student and if he/she is not able to perform with competence in the classroom, what actually occurs inside the classroom and what the students see of their mentors in the classroom, are but the end results of the preparations she has undergone and of the expertise she may have gained and on which she relies upon in the management of her class.

Due to the problems encountered in the field of teaching – learning process, the researcher undertake this investigation to assess the level of English proficiency skill of the second year high school students of the Division of Rizal.

MATERIALS AND METHODS

This chapter will dwell on how the study will be undertaken. This will include among others, the research method and discussion of the research design, sources of data, procedures on gathering data, sampling techniques and relevant information from the respondents.

RESEARCH METHOD AND DESIGN

In order to attain the objectives and the main purpose of this study, the researcher intends to adopt the descriptive method of research as proposed where in the data were gathered in the form of questionnaire. This is a set of printed or written questions with a choice of answers, devised for the purposes of a survey or statistical study and which are appropriate according to the statement of the problem.

The data were presented, discussed, interpreted and analyzed using the descriptive method.

POPULATION AND SAMPLE SIZE

The researcher conducted her study at the Secondary School Division of Taytay Rizal. The respondents of this study were composed of thirty five teachers (35) ideally both male and female selected randomly. The sampling design used was random sampling using the fish bowl technique.

In this method, using questionnaire as the main tool to assess the English proficiency of the students, the researcher asked permission from the main authority to conduct her study composed of thirty five (35) representing population of the teacher respondents.

RESEARCH INSTRUMENT USED

In this study, the researcher used a main tool which is the survey questionnaire in forming and gathering the data needed. The questions are divided into three (3) parts. Section 1, this presents the profile of the respondents such as the age, gender, length of service, and specialization. Section 2, presents the questionnaire in the assessment of the students English proficiency. The Likert and arbitrary scale for Part II will be “Hardly Needed” with a corresponding Likert of 5 and Arbitrary scale of 4.50 – 5.00; “Very Much Needed” with a corresponding likert of 4 and Arbitrary scale of 3.50 – 4.49; “Much Needed” with a corresponding Likert of 3 and Arbitrary scale of 2.50 – 3.49; “Considerably Needed” with a corresponding Likert of 2 and Arbitrary scale of 1.50 – 2.49; “Not Needed” with a corresponding Likert of 1 and Arbitrary scale of 1.00 – 1.49. And the last part is the suggestions and recommendations of the respondents to help solve the problems with regards to the English proficiency skills of the students.

The questionnaire was drafted thru extensive reading of the researcher of various books and English materials, visitation into the library and browsing by the use of technology such as searching into websites. All parts of the questionnaire were patterned accordingly that deals with all aspects of the study in finishing the proper questionnaire.

The questionnaire was administered to the third and fourth year teachers for validation. It was shown to the English teachers for grammatical corrections and was also shown to the Editor for further comments, criticism and suggestions. Before the final draft of the questionnaire, the researcher produced some copies for the respondents. Upon final approval by the English editor, the questionnaire was distributed to the teacher respondents for their assessment on the English proficiency of the second year high school students in the four (4) major areas of English communication.

STATISTICAL TREATMENT OF DATA

The researcher used the following statistical tools for the interpretation and analysis of the data gathered in the survey:

1. Percentage, Ranking and Frequency Distribution – This is used to determine the percent equivalent of the number of respondents.

2. Weighted mean – This is a measurement of central tendency. It represents the average of a given data. Weighted mean is similar to arithmetic mean or sample mean. This is calculated when data is given in a different way than in arithmetic mean

The Rating Scale - the level of the respondents' response were determined by verbal interpretation to the computed weighted mean using Likerts' 5 point scale as illustrated in the table below:

Ranges	Scale	Verbal Interpretation
4.50 – 5.00	5	Hardly Needed
3.50 – 4.49	4	Very Much Needed
2.50 – 3.49	3	Much Needed
1.50 – 2.49	2	Considerably Needed
1.00 – 1.49	1	Not Needed

ANOVA (Analysis of Variance)

The One-Way ANOVA procedure produces a one-way analysis of variance for a quantitative dependent variable by a single factor (independent) variable. Analysis of variance is used to test the hypothesis that several means are equal. This technique is an extension of the two-sample t test.

The Rating Scale

The level of the respondent's response was determined by verbal interpretation to the computed weighted mean using Likerts' 5 point scale

Option	Verbal Interpretation	Scale
5	Hardly Needed	5.0 - 4.49
4	Very Much Needed	4.5 - 3.49
3	Much Needed	3.5 - 2.49
2	Considerably Needed	2.5 - 1.49
1	Not needed	1.5 - 1.00

The treatment of data basically included the following:

a. Scoring and computation of the weighted averages

b. Use of frequency distribution, the percentage (5) and corresponding ordered of ranking. The highest frequency, percentage and the first in rank indicated the norm.

RESULTS AND DISCUSSION

This focuses on the analysis, interpretation and presentation of data. The data obtained from the survey questionnaire given by the respondents are the source of information for this research.

RESPONDENTS OF THE STUDY

1. PROFILE

1.1 GENDER

It showed that from the total respondents of 35; 82.86% was gathered with 29 frequency for female while there was only 17.14% for the 6 frequency under male category.

1.2 AGE

It showed that out of the total respondents of 35, 11 or 31.43% belong to 20-27 year old group range followed by 10 or 28.57% age group range belonging to 28-35 year old respondents. Next is 8 or 22.86% belonging to 44 and above year old category. Lastly, 6 or 17.14% belonging to the 36-43 year old age group.

1.3 LENGTH OF SERVICE

For the frequency and percentage distribution of table 1.3 pertaining to the length of service of the respondents, 22 or 62.86% with the 1-2 year length of service got the highest percentage, followed by 9 or 25.71% for the 3-4 year length of service category. The last is 4 or 11.43% for the 5 years and above length of service.

1.4 SPECIALIZATION

The specialization under Science has 42.86% for 15 frequency as the highest while English is in the second rank with 37.14% for 13 frequency. The succeeding rank went to Math specialization with 14.29% for 5 frequency and the specialization for History and Computer are parallel to each other with only 2.86% for only 1 frequency.

2. ASSESSMENT

2.1 ENGLISH PROFICIENCY SKILLS

2.1.1 LISTENING

In general, the WM of the English proficiency for the listening skill of the second year high school students, the overall weighted mean(WM) is 3.98 or Very Much Needed. The highest WM of 4.29 needs to improve their skills to listen with understanding to a set of instruction. Followed by 4.26 WM for rules and regulations. Next is 4.23 WM for a report of an emergency situation. The mathematics or science problem follows next with 4.11 WM, next is 4.09 WM directions by a person. An announcement comes next with a 4.0 WM. A weather report over the radio or TV, and a message both got a 3.94 WM. The 3.83 WM is the same for newscast by a reporter, a request, and an opinion/comment. 3.71 WM comes next with an account of a personal problem. Lastly is 3.69 WM for an offer.

2.1.2 SPEAKING

The overall Weighted Mean (WM) of the English proficiency for the Speaking skills of the second year high school students is 4.0 or Very Much Needed. The highest WM is 4.49 for answering questions followed by 4.37 WM for reporting orally, next is asking a question with a 4.17 WM. Participating in a conversation/group discussion got 4.03 WM. Relaying a message is next with 3.97 WM. Followed by 3.94 WM for conducting a meeting. Next is transacting business over the counter with 3.69 WM. Lastly is 3.51 WM for using the telephone or the radio.

2.1.3 READING

As proven, the Reading Proficiency Skills is definitely Very Much Needed as the overall mean result of 4.07 Weighted Mean (WM) for the survey result towards the reading proficiency skills of the second year high school students. To enumerate, the results from the highest are Interpret instruction/direction correctly (4.31 WM); recall ideas directly stated in the material read (4.29 WM); pick out specific details to get the main idea and read quickly to get the important idea or the message of a selection (4.26 WM); draw conclusions/ make generalizations from what is read and identify what is given/ what is asked in a mathematics problem or what is to be proven in an experiment (4.23 WM); differentiate facts from opinions (4.17 WM); reorganize ideas or information read (4.11 WM); choose the meaning of a word that fills the sentence and criticize ideas or information read (4.09 WM); interpret headlines/editorials of newspaper/magazine and predict outcomes from incidents read, and interpret graphs, tables, charts and ads (4.06 WM); read rapidly for specific details such as for a date, a name, a place or a reason for something (4.03 WM); use the parts of a book with ease and facility (4.00 WM); get meanings of a word by looking at its parts and note cause and effect relationships (3.97 WM); use the card catalogue with ease and facility (3.86 WM); make guesses about time and place (3.83 WM); and lastly, guess something from what is read (3.66 WM).

2.1.4 WRITING

It showed that the Very Much Needed is the result as the overall Weighted Mean of 4.04 starting from the highest rank in the summary of something to read with 4.26 WM while writing an organize outline of ideas and business letter are parallel for 4.17 WM; a set of direction for someone to follow has 4.11 WM followed by 3 categories with the same WM of 4.00 are announcement of school or community activity, a personal reaction to something said or read and a paragraph showing the message/details supporting it.

Meanwhile writing a description of something for a person, place, event or an idea has 3.97 WM followed by writing an anecdote with 3.94 WM while a poster for school community activity has 3.91 WM and 3.86 WM as the last score in the rank is for a speech appealing to people regarding a school or community problem.

3. TEST

3.1 GENDER

It indicated that the test for significant difference between the gender of teacher - respondents towards their mean assessment with the English proficiency of second year high school students. The decision is to reject the null hypothesis (there is no significant difference between the gender of the respondents towards their mean assessment with English Proficiency) if the p-value is less than or equal to the 0.05 level of significance. As shown in the table, with p-value of 0.965, we do not reject the null hypothesis, since p-value is greater than the 0.05 level of significance. Hence, at 5% level of significance, we have insufficient evidence to conclude that there exists a significant difference between the gender of teacher - respondents towards their mean assessment with the English proficiency of second year high school students.

3.2 SPECIALIZATION

It presented the ANOVA (One-way Analysis of Variance) test which determines if a significant difference exists between the mean assessments of the teacher respondents with the English proficiency of the second year high school students when grouped according to their field of specialization. Significant difference is said to be present among variables if the p- value is less than or equal to the level of significance (0.05).

It can be observed from the table that the p-value (.759) is greater than the level of significance ($\alpha = 0.05$), we retain the null hypothesis, thus, we have insufficient evidence to conclude that there is a significant difference between the mean assessment of teacher respondents with the English proficiency of the second year high school students when grouped according to their specialization.

3.3 AGE GROUP

The appearance using the ANOVA (One-way Analysis of Variance) test will determine if there is a significant difference exists between the mean assessments of teacher respondents with the English proficiency of the second year high school students when grouped according to their age. The proclamation is not to reject the null hypothesis that there is no significant difference between the two variables because the p-value is greater than the 0.05 level of significance.

As shown in the result of the table presentation, the p-value of (.822) is larger than our required level of significance (α = 0.05) in order to reject the null hypothesis. Therefore, we have unsatisfactory evidence to conclude that there is a significant difference in the study.

3.4 LENGTH OF SERVICE

There is no evidence in Table 3.4 to conclude if there is a significant difference exists between the mean assessments of teacher respondents with the English proficiency of the second year high school students– when grouped according to their length of service. Significant difference is said to be present among variables if the p-value is less than or equal to the level of significance (0.05).

From the ANOVA (One-way Analysis of Variance) test which determines the said question, it is reflected not to reject the null hypothesis (there is no significant difference between the two variables) because the p-value is higher than the 0.05 level of significance. The p-value should be less than or equal to the 0.05 level of significance in order to reject the null hypothesis.

Therefore, the p-value gathered in the table representing .362 which is greater than our level of significance (α = 0.05), thus, we failed to reject the null hypothesis.

CONCLUSIONS

From the cited findings, following conclusions are made:

1. The teacher respondents from the Division of Taytay Rizal are female-dominated schools, generally between 20-35 years old, in the prime of their lives, educationally qualified, major in the different areas of specialization, specifically using English as a medium of instruction and had served for more or less 1 to 5 years.

2. There is no significant difference between the male and female teacher respondents in their mean assessment of the English proficiency of the second year high school students.

3. As proven in the result, there is no significant difference in terms of length of service of the respondents in their assessment of the students English proficiency skills.

As shown in the tabular results, there is no significant difference in the mean assessment of the respondents in terms of their field of specialization into their assessment of the students English proficiency skills. Likewise, parents and teachers should work hand in hand to help students improve their English skills in the four (4) major areas of English communication.

Based on the findings and conclusions the following recommendations are drawn.

1. Teacher should encourage parents to introduce and expose their children more to various reading books/materials.

2. Parents and teachers should perhaps designate a certain amount of time each day for speaking only in English. One of the most important aspects of gaining proficiency in any language is speaking it regularly.

3. Students should be motivated to join a club dedicated to learning English. This can accelerate learning and can enhance their English skills.

4. Reading news articles at English news websites is a way to work on reading comprehension. On line learning is one tool to improve English literacy. The internet is one of the best places to go to improve vocabulary since definitions can be looked up easily with a simple web search.

5. Parents should advise their children to avoid watching dubbed films in favor of those with English voice and subtitles. Watching or listening to media in English is a way to improve English comprehension without feeling like you are studying. Watching popular English movies and listening to English music would also be a great motivation to understand English.

6. Schools should provide and add more books, textbooks and reading materials in the library to accommodate more students to help improve their craft in English skills.

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ROLE OF SOCIAL ORIENTATION AND COMMUNITY INVOLVEMENT IN CEN COMMUNITY OUTREACH PROGRAM

Arnold O. Adante

INTRODUCTION

The Philippines enters another era of rapid change and faces a dynamic array of economic, social, global and technological forces, there is a need to enable Philippine Higher Education Institutions to optimally participate in national transformation through the production and transfer of knowledge that is fundamental to the country's engagement in the knowledge-based global economy. In particular, extension programs in higher education institutions provide the space to discover practical, evidence and science-based answers that can address real world social, economic, environmental challenges of partner citizens and communities. The incubation, knowledge validation, diffusion and utilization process in extension, translation or applied require a much deeper relevance when universities carry these out in mutually beneficial collaborators with partner communities such as industry, local businesses or community groups. In addition, the community extension programs helps in cultivating individuals' leadership skills, public speaking and self-confidence.

STATEMENT OF THE PROBLEM

The study sought to find out the social orientation and community involvement of engineering students in a partner community in Habitat for Humanity in Taguig City, a step towards local growth and development: Specifically the study sought to find out answers to the following questions:

1. What is the profile of the respondents in terms of:
    1.1 age,
    1.2 gender, and
    1.3 year level?
2. What are the core values of the respondents in terms of:
    2.1 family relations,
    2.2 community relation?
3. What are the community outreach activities which show the respondents' participation as regards;
    3.1 social interaction with people around them; and
    3.2 basic services of the respondents in relation to the community involvement?
4. How do the social orientation and community involvement of the respondents bring about change in themselves and society?

5. Is there a significant difference in the social orientation and community involvement of the respondents when there profile is considered?

The researcher believes that community involvement or community service is the way to develop students' awareness on volunteerism and it is the best practice to enhance socialization with others.

MATERIALS AND METHODS

This study utilized the descriptive method of research. A widely accepted descriptive research is used to describe characteristics of a population or phenomena being studied. In order to gather the needed data in this study, the researcher used the standardized questionnaire prepared by Geggie, J. et.al. and Strenger, M. and modified to suit the present undertaking. The respondents were one hundred students from the College of Engineering enrolled in the academic year 2018-2019.

Several formulas were utilized for the statistical analysis of the data gathered; percentage, weighted mean, standard deviation and analysis of variance.

RESULTS AND DISCUSSION

The following were the result on the research problem regarding the Social Orientation and Community Involvement:

Table 1

Profile of the Respondents in terms of Age

Age	Frequency	Percentage
16 – 17	2	2%
18 – 19	40	40%
20 – 21	32	32%
22 and above	26	26%
Total	**100**	**100%**

It can be seen from Table 1 that of the 100 respondents, 40 of them have ages 18 to 19, 32 of them belong to ages 20 to 21, 26 of them are more than 21 years old, and only two are on the age bracket 16 to 17. These results suggest that majority of the student respondents are on their appropriate or legal age to have full discernment of their actions in the community.

Table 2

Profile of the Respondents in terms of Gender

Gender	Frequency	Percentage
Male	13	13%
Female	87	87%
Total	**100**	**100%**

The table above indicates that there are 13 male respondents and 87 males respondents which clearly tells us that the female student – respondents outnumbered their male counterparts.

Table 3

Profile of the Respondents in terms of Year Level

Year Level	Frequency	Percentage
First	44	44%
Second	18	18%
Third	26	26%
Fourth	12	12%
Total	**100**	**100%**

It can be noted from Table 3 that there are 44 college freshmen, 26 college juniors, 18 s sophomores, and 12 seniors.

Table 4

Core Values of the Respondents in terms of Family Relations

Indicators	Weighted Mean	Interpretation	Rank
1. Spending time together doing things they enjoy, for example sports, reading, camping, and playing games.	3.56	Strongly Agree	7
2. Sharing similar values and beliefs that create a sense of belonging and bonding.	3.64	Strongly Agree	5
3. Showing affection and care on a regular basis through words, hugs, kisses, and thoughtfulness.	3.53	Strongly Agree	8
4. Seeing family well-being as a first priority and acting accordingly with dedication and loyalty.	3.74	Strongly Agree	2
5. Listening to each other and communicating with openness and honesty.	3.65	Strongly Agree	4
6. Offering and being able to ask for support, with family members knowing they will receive assistance, encouragement and reassurance from one another.	3.68	Strongly Agree	3
7. Understanding, respecting, and appreciating each family member's unique personal qualities.	3.84	Strongly Agree	1
8. Being able to withstand difficulties and adapt to changing circumstances in positive ways.	3.63	Strongly Agree	6
Over – all weighted mean	**3.659**	**Strongly Agree**	

It is noticeable from the table above that the respondents strongly agreed on all the eight indicators. Further, it can be observed from the table above that in particular, the main core value in this domain concerns primarily on the respondents recognition of each family member's unique personal qualities as stated in indicator number 7 which garnered the highest weighted of 3.84. Also, it can be viewed from the table above that as a whole, the respondents showed strong disagreement on all the indicators describing their core values in terms of family relations as reflected from the over – all weighted mean of 3.659.

Table 5

Core Values of the Respondents in terms of Community/Social Relations

Indicators	Weighted Mean	Interpretation	Rank
1. Students become known to the community business owners, residents, and others as individuals.	3.22	Agree	6
2. Students feel their cultural background is valued and accepted.	3.51	Strongly Agree	5
3. Students have the opportunity to explore academic interests through a real world lens.	3.59	Strongly Agree	3
4. Students connect what they are learning in school to issues that actually matter in real life.	3.59	Strongly Agree	3
5. Students expand their worldview, develop empathy, and leadership skills, and realize how their actions can have a positive impact.	3.61	Strongly Agree	1
6. Students are aware of the socio – physical, cultural, economic, and moral realities of the communities they serve.	3.59	Strongly Agree	3
Over – all weighted mean	**3.518**	**Strongly Agree**	

As shown from the table, there was only one indicator among the six wherein the respondents did not show strong agreement. In general, all computed over-all weighted mean of 3.518 interpreted as strongly agree which justifies that all student-respondents are cognizant of the crucial role of social interaction and community involvement in their lives as learners.

From the table below, it shows that all the above mentioned community outreach programs or activities are highly participated by the respondents. Specifically, it turns out that Bayanihan is the most agreed to be participated among others, with a weighted mean of 3.50. Other activities wherein the student – respondents strongly agreed to have participated onto are conduct of seminars, literacy programs, coastal clean – up, and bloodletting. In totality, the over – all weighted mean of 3.370 suggest that they are highly participative in the community outreach activities covered above.

Table 6

Participation of the Respondents in Community Outreach Activities in Social Interaction

Community Outreach Activities/Programs	Weighted Mean	Interpretation	Rank
1. Bayanihan	3.50	Strongly Agree	1
2. Feeding Program	3.40	Strongly Agree	3
3. Literacy Program	3.31	Strongly Agree	7
4. Coastal Clean – up	3.31	Strongly Agree	7
5. Conducting Seminars	3.36	Strongly Agree	4
6. Tree Planting	3.32	Strongly Agree	5
7. Gift Giving	3.45	Strongly Agree	2
8. Red Cross Blood Letting	3.31	Strongly Agree	7
Over – all weighted mean	**3.370**	**Strongly Agree**	

Table 7

Basic Services of the Respondents in terms of Community Involvement

Indicators	Weighted Mean	Interpretation	Rank
1. Students should take an active role in literacy campaigns.	3.66	Strongly Agree	2
2. They should be enthusiastic about opening blood donation camps, founding gymnasiums, health centers, libraries, etc. such enterprises benefit a large number of people, and help in maintaining the society in a good condition.	3.46	Strongly Agree	5.5
3. They can teach illiterate to read and write.	3.68	Strongly Agree	1
4. Funds can be raised through subscriptions, lottery, and through government help. Students, urged by the spirit of social welfare can also arrange for charity shows to the necessary funds.	3.46	Strongly Agree	5.5
5. Students should undertake the responsibility of fighting anti – social activities of a few corrupt people.	3.44	Strongly Agree	7
6. They must solemnly vow to eradicate drugs and drinks from their localities.	3.51	Strongly Agree	3
7. Whenever there is a general crisis like the outbreak of malaria, or floods or earthquakes, students are expected to come to the aid of the distressed.	3.48	Strongly Agree	4
Over – all weighted mean	**3.527**	**Strongly Agree**	

It can be seen from the table above that all the seven indicators for the basic services in terms of community involvement were strongly agreed. In particular, they stand that basic services as community involvement and support must be geared towards teaching the illiterate to read and write as reflected from the weighted mean of 3.68. Generally, the computed over – all weighted mean of 3.527 suggests that student – respondents are much willing to render basic services as community involvement deeds geared towards improving themselves and the community and uplifting socio – cultural and moral values within their localities.

Table 8

Perceived Effect of Social Orientation and Community Involvement of the Respondents On Themselves and the Society

Indicators	Weighted Mean	Interpretation	Rank
1. Community service helps students to mature by developing social skills, doing outreach or public relation tasks.	3.73	Strongly Agree	1
2. Community service enhance students' problem solving skills, improve their ability to work with team and enable them to plan more effectively.	3.69	Strongly Agree	3.5
3. Community service helps students to cultivate connections between various organizations, schools, community groups, which can prove to be very useful later on their lives.	3.64	Strongly Agree	6
4. Community service allows students to make an important contribution to an organization or their field of interest without the pressure of a regular part – time or full – time job.	3.69	Strongly Agree	3.5
5. Community service helps students gain or acquire important life experiences, meet new people, and may be able to receive school credit.	3.71	Strongly Agree	2
6. When volunteering, students enjoy a sense of personal satisfaction, knowing that they are making a difference in other people's lives.	3.66	Strongly Agree	5
Over – all weighted mean	**3.687**	**Strongly Agree**	

As shown from the table above, the student – respondents had strong agreement on all the indicators for the possible changes brought about by the respondents' social interaction and community involvement. Among these, the highest computed weighted mean is for indicator number 1 which is 3.73. This focuses on personal changes that take place in terms of maturity on social skills and accomplishment of outreach and public tasks when it comes to community immersion programs.

Table 9

Differences in Social Orientation and Community Involvement across Age

Dimension	p - value	Decision	Remarks
Family Relations	0.2775	Accept H_o	Not Significant
Social/Community Relations	0.3957	Accept H_o	Not Significant
Social Interaction	0.5177	Accept H_o	Not Significant
Basic Services	0.8954	Accept H_o	Not Significant
Change to Oneself	0.5554	Accept H_o	Not Significant

As shown in the table above, we have the following p – values: family relations – p = 0.2775>0.05; social/community relations – p = 0,3957>0.05; social interaction – p = 0.5177>0.05; basic services – p = 0.8954>0.05; and change to oneself – p = 0.5554>0.5. These values directed the researcher to accept the null hypothesis for each of them. Therefore, the social orientation and community involvement of the students grouped according to age do not significantly differ.

Table 10

Differences in Social Orientation and Community Involvement across Gender

Dimension	p - value	Decision	Remarks
Family Relations	0.3634	Accept H_o	Not Significant
Social/Community Relations	0.3021	Accept H_o	Not Significant
Social Interaction	0.5131	Accept H_o	Not Significant
Basic Services	0.9755	Accept H_o	Not Significant
Change to Oneself	0.3079	Accept H_o	Not Significant

In Table 10, it can be gleaned that the obtained p – value for family relations was p = 0.4634>0.05, for social/community relations, we have p = 0.3021>0.05, with regards to social interaction, p = 0.5131>0.05, while for basic services p = 0.9755, and for change to oneself p = 0.3079. Hence, the corresponding null hypotheses were each accepted. Thus, no significant difference can be noted among the social orientation and community involvement of the students across their gender.

Table 11

Differences in Social Orientation and Community Involvement across Year Level

Dimension	p - value	Decision	Remarks
Family Relations	0.3906	Accept H_o	Not Significant
Social/Community Relations	0.0660	Accept H_o	Not Significant
Social Interaction	0.1055	Accept H_o	Not Significant
Basic Services	0.5083	Accept H_o	Not Significant
Change to Oneself	0.4320	Accept H_o	Not Significant

It can be seen from the table above that within the dimensions of family relations, social/community relations, social interaction, basic services, and change to oneself, the computed p – values were as follows: 0.3906, 0.0660, 0.1055, 0.5083, and 0.4320 respectively. Each of these values are greater than α = 0.05. This led the researcher to accept the null hypothesis and conclude that there are no significant differences in the social orientation and community involvement of the student – respondents across the above mentioned dimensions when their year level is considered.

CONCLUSION AND RECOMMENDATION

The following conclusions were drawn:

1. The students who took part in this study are already in their legal age and thus have understanding of their possible contribution to the betterment of the society through rendering services in the community.

2. The student – respondents embrace family relations and community relations as important ingredients of harmonious dealing with the society grounded on community services and social welfare. They put emphasis on values like strong family prioritization, open mindedness, responsibility, empathy of others, and others that may help in cultivating a more positive cultural background in our society.

3. There was an active participation to various community outreach activities initiated by the university or other organizations. These activities and programs are geared towards fighting ignorance and illiteracy among the younger generation living within the same community.

4. The positive changes brought about by the respondents' social interaction and community involvement include personal and social growth. It allowed the students to gain a higher level of maturity in terms of social, problem solving, and critical thinking skills.

5. The education students who took part in this study share similar points of view, practices, and belief with regards to social orientation and community involvement when they are grouped according to their age, gender, and year level.

Recommendations

Based on the conclusions, the researcher recommends the following:

1. Student respondents are suggested to take the initiative to respond to the community's needs and to cultivate a sense of eagerness to help to others even when there is no single organization that is requiring them to do so. Also, they are recommended to continue working for various causes that are beneficial to the people living within their locality especially those which help in educating the young ones.

2. The teachers are requested to allow students to be immersed more often on community outreach activities as these help them in imbibing a sense of responsibility for others. They are requested to help the university's thrust on developing students who have high regards for socio – cultural values through its programs geared towards socio-cultural and civic activities.

3. The school administrators are recommended to organize more community immersion programs and other activities that would further develop core values among students.

4. Parallel studies may be done by future researchers to validate the findings of this study. Furthermore, these studies may include variables which were not covered in this research and may explore interrelationships that may exist among them.

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EMPLOYABILITY SKILLS AND SCHOOL EXPERIENCE OF BUSINESS GRADUATES OF EARIST: BASIS FOR A PROPOSED PLACEMENT PROGRAM'

Daisy P. Burgo

INTRODUCTION

Employers are more satisfied with graduates who possess core skills, such as creativity and critical thinking, and leadership skills, than those who simply possess skills specific to their vocation. Other skills such as problem solving, communication, and life-long learning are now the basic requirements to be able to compete and to be successful. Higher education institutions, future employers, and students must collaborate to ensure college graduates have the needed skills for employment. Educators and employers need to work together to prepare students for the complexities they will encounter as they leave school and enter the workplace. It is observes the lack of commonly recognized frame to adapt and use in schools as benchmarks for developing and managing its undergraduate and graduate programs as well as assuring required competencies recognizable anywhere in the world are acquired by students from a program, at every stage and from every subject while in school. This entails schools having to adjust and align its programs and competency standards to international standards. Feedback from the concerned programs and standards staff would indicate that many of the CHED regulated higher learning institutions have difficulty adapting to the process requirements of defining the program-based learning outcomes and aligning learning competences to program outcomes using international benchmarks.

In this context that the researcher decides to assess and analyze the employability skills and school experience of Bachelor of Science in Business Administration graduates in Eulogio "Amang" Rodriguez Institute of Science and Technology (EARIST) It is through to this study that will be able to find out the strengths and weaknesses of the employability of students and graduates, as well the service provided to the course program and recommend a BSBA for Proposed Placement Program designed to graduates.

Statement of the Problem

Specifically, the researcher sought to answer the following questions:

1. How do the alumni and industry sector perceived the employability skills of Business Graduates in terms of: Communication skills; Teamwork skills; Problem solving; Initiative/Creativity; Planning; Self-Management; Learning skills; and Technology?

2. Is there a significant difference in the assessment on the abovementioned variables?

3. How do the respondents assessed the school experience of the business graduates in terms of;

   3.1 Curriculum and Instructions

   3.2 Co-Curricular

   3.3 Extra curricula?

4. Is there significant relationship between the employability skills and school experience of Business Graduates?

5. Based on the findings, what placement program may be proposed?

Conceptual Framework of the study

The Conceptual framework discussed the flow of the study. The study used the conceptual model which will be the guide in this study follows the Social Cognitive Career Theory utilizing the INPUT, PROCESS and OUTPUT model which is shown in Figure 1. The researcher utilized the (IPO) model

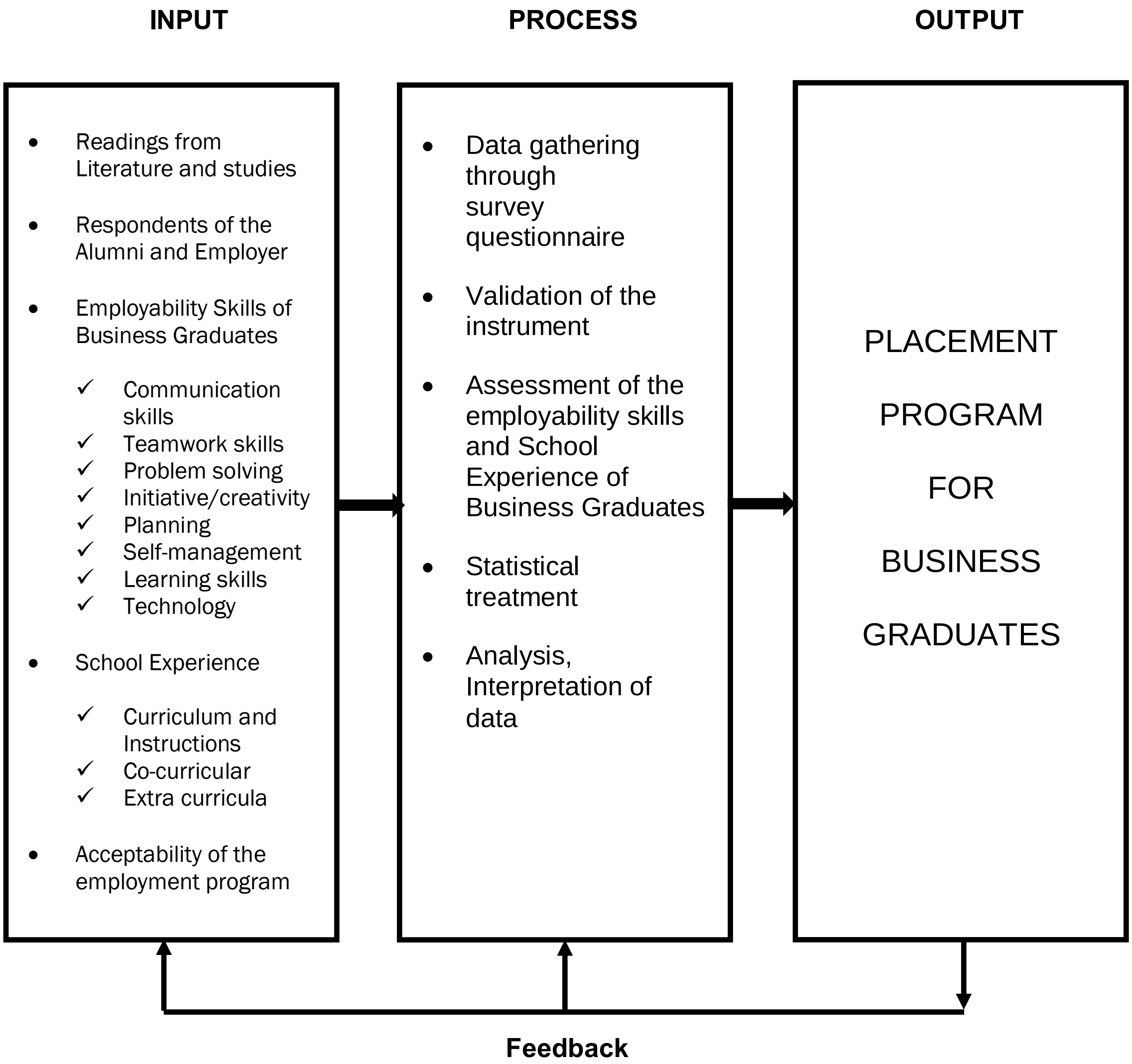

Figure 1. Paradigm of the Study

Objective of the Study

The general objective of the study is to develop and it was focused on the employability skills of business graduates as to Communication skills, Teamwork skill, Problem solving, Initiative/Creativity; Planning, Self-Management, Learning skills; and Technology. It also covers the school experience on Curriculum and Instructions, Co-Curricular, Extracurricular.

Specifically the researcher aim to:

1. To develop employability skills of business graduates as to Communication skills, Teamwork skill, Problem solving, Initiative/Creativity; Planning, Self-Management, Learning skills; and Technology to improve the learning process as highly important.

2. To develop the impact of school experience to the business graduates employment was highly important to the benefits of the students.

3. To identify the Alumni and Industry sectors that the primary employability skills must focused and enhanced among the business students.

4. To show up or expose and enhance the business students to be highly employable as the proposed placement program.

Significance of the Study

The study finds significance in the employability skills of business graduates of EARIST improvement of the college program on Bachelor of Science in Business Administration in Eulogio “Amang” Rodriguez Institute of Science and Technology, with the purpose mind of finding ways to enhance the quality of graduates in both local and global market.

RELATED LITERATURE

Employability Skills, conducted the report technical skills, problem solving skills and creative thinking skills are mostly needed in the field of manufacturing and export sector as well as sufficient supply of technical skills and some technologically advanced fields, at both an intermediate and higher level to help manufacturing firms adapt technological innovations, face international competition and ultimately, improve their productivity and competitiveness. In effective time management it will involves the planning the amount of the time you will spend in a project that will be given to you and your personal life–to get the things done in the most effective and productive manner. Improving time management skills by using range of tools and techniques used to accomplish specific task, project and goals. Creating a productive environment, setting of priorities and reducing are helping elements for the time management skills.

Communication is about more than just exchanging information. It's about understanding the emotion and intentions behind the information. Effective communication is also a two-way street. It’s not only how you convey a message so that it is received and understood by someone in exactly the way you intended, it’s also how you listen to gain the full meaning of what’s being said and to make the other person feel heard and understood.

The field of business describes in this study that the business, marketing, management, work–life balance is not only a challenging task for the employees to have a successful career with their personal life, but also impact on the person’s satisfaction.

In the rhetoric of employability, the concept is given many definitions varying from those emphasizing individual skills and abilities and preparedness to be employable to those laying stress on the employee’s qualification. The “idea of employability” is possible to understand according to scholars in management as to offer people a different kind of psychological contract so that they will feel a fair deal exists, so that they will not feel betrayed. Employability is not only a question for newly graduate but also the already employed, who need to develop new knowledge, abilities and skills. Employability means for the individual that has to continuously update knowledge and actively establish a personal life-long learning project.

Technical skills provide them with the ability to apply specialized knowledge or expertise. For top level managers, these abilities tend to be related to knowledge of the industry and a general understanding of the organizations process and products. For middle and lower-level managers they are related to specialized knowledge required in the areas with which they work, such as finance, human resources, manufacturing, computer systems, law and marketing.

Conceptual skills refer to the mental ability to analyze and diagnose complex situations. These skills allow managers to see how things fit together and facilitate making good decisions. Then for Daft it is the cognitive ability to see the organization as a whole and the relationship among its part. It involves the managers thinking, information processing, and planning abilities. It involves knowing where one's department fits into the total organization and how the organization fits into the industry, the community, and the broader business and social environment. It means the ability to think strategically to take broad and long term view.

The employers focus more on graduates personal characteristics and soft skills that undergraduate degree program. The confederation of British pointed out the board executives regarded graduates skills and attitudes as their top priority concern but other rate university attended is also important. Recently a study finding disclosure that 8 in 10 employers who value literacy and numeracy. However, few studies identified problem solving skills, while communication as top priority by employers.

Problem solving skills argues that are among the top ten skills for recruiters of graduates. They want people who will take personal responsibility to make sure targets are met; who can see that there might be a better way of doing something and who are prepared to research and implement change; people who don't panic or give up when things go wrong but will seek away around the problem.

Graduates are exhorted to develop personal skills, qualities, and experiences that enable them to compete in the labor market. The impressive employability profile of comprehensive university graduates to middle level management positions. There is a need to develop a more functional framework for employability where the diversity of fields of study offered in universities is linked to the diversity of employment studied. The human relationship skills and communication skills is the most useful competencies learned by the graduate of management student. Communication is important in the workplace of a study.

The study on this article has emphasized that universities and colleges should offer education with an attitude. Education should gear towards excellence, harnessing the potentials of young men and woman to be the best that they can become. Thus, studying and learning is keeping the faith with empowering one's human potentials. It is a living legacy of enjoying personal and professional growth. It is a journey to learn and to grow spiritually. It will never exhaust their capacity to grow toward their potentials or run out of opportunities to help others. It is a living treasure which helps us grow in our everyday spirituality, gain self-knowledge and regain the healing and nurturing of our human potentials, believing in our capacity to become leaders of significance. We should acquire the necessary virtues to make our ordinary life of service an opportunity for increasing personal sanctification.

The categories for job level position in the first job included: rank or clerical; professional, technical or supervisor, managerial or executive; and self-employed.

Important treatise on the null environment implies that support is not simply the absence of barriers, or leaving the individual alone. In other words, support is not a neutral condition; rather, it involves factors that actively promote career behavior. Thus infer that supports and barriers represent largely unique constructs. For example, an individual may recognize distinct barriers (e.g., family disapproval, limited savings) and supports (e.g., peer approval, access to scholarship funding) relative to a given option. Alternatively, one might contend that support and barriers perceptions are inversely related or reflect opposite poles on a positive-negative continuum.

Education plays two fundamental roles in the process of economic wealth. First education increases the supply of highly educated business or an entrepreneur in the economy especially in industries that require high levels of education. Second, education improves the effectiveness of potential entrepreneurs through enhancing their interpersonal, management and business skills

Also that according to government projections released last month, only three of the 30 occupations with the largest projected number of job openings by 2020 will require a bachelor's degree of higher to fill the position–teachers, college professors and accountants. Most job openings are in professions such as retail sales, fast food and truck driving, jobs which are not easily replaced by computers.

Synthesis of the Study

Affirm that communication is most important in the workplace and agreed to the statement that it is the top priority of employers. (8), (11), (12), (13). For them strategic thinking is one of the best skills a leader can teach their staff and empower the team to perform at the top of their games.

Employability skill is considered as an important task. Creating a productive environment, setting of priorities and reducing distractions are helping elements for the time management skills. Problem solving skills has a two distinct type the analytical and creative skill. (14), (15), (16) Philippine Skills (1)), (17) decision making is like a management process as it is the making of a choice (18) employability skill is considered as an important task. Creating a productive environment, setting of priorities and reducing distractions are helping elements for the time management skills. Problem solving skills has a two distinct type the analytical and creative skill.

Those related literature and studies answered the questions stated earlier. This will help the readers to understand more about this study.

METHODS OF RESEARCH

The review of related literature has shown recurring themes and discussion about the importance of employability skills and school experience of business graduates of EARIST. This chapter discusses the appropriateness description and the intention of survey research is to gather data at a particular point in time and to use it to describe existing conditions. The descriptive nature of research was used in order to gain information on how the institution has become attractive.

Research Design

The study adopted a survey research technique. The choice of the approach is based on the nature of the objective to be achieved in this study (Sekaran & Bougie, 2016). The use of surveys in educational fact-finding because they provide a great deal of accurate information. The intention of survey research is to gather data at a particular point in time and to use it to describe existing conditions. The descriptive nature of research was used in order to gain information on how the institution has become attractive.

Moreover, the relevance and appropriateness of the above method to this study involve the description, recording and analysis of data on the prevailing assessment of the selected respondents. The process used descriptive statistics; techniques and numeric measures. Furthermore, the process of descriptive research went beyond mere gathering and tabulation of data, it also involves the elements and interpretation of the meaning or significance of what is to be described. Thus, description is often comparison and contrast involving measurement, classifications, interpretation and evaluation.

Sample and Procedure

Population and Sampling

The study limited to the Bachelor of Science in Business Administration graduates in EARIST-Main Campus and Industry partners. The selection of the respondents will be done through purposive sampling. The main criterion for selecting any unit from the population using this sampling procedure is the investigator's judgment that the unit somehow represents the population. Often units for this type of sample are selected on the basis of known characteristics that seem to represent the population. The researcher assumes that the units selected represent the population on unknown characteristics as well.

Table 1

Alumni as to Year Graduated

Year Graduated	N	f	%
2005	40	14	3
2006	92	29	7
2007	105	31	7
2008	203	40	9
2009	373	57	13
2010	330	53	12
2011	200	40	9
2012	192	39	9
2013	213	28	7
2014	210	45	11
2015	313	51	12
Total	**2217**	**427**	**100**

As perceived in Table 1, the distribution of the respondents as to year graduated as follows: 57 or 13 percent are 2009, 53 or 12 percent are 2010, 51 or 12 percent are 2015, 45 or 11 percent are 2014, 40 or 9 percent are 2008, 40 or 9 percent are 2011, 39 or 9 percent are 2012, 31 or 7 percent are 2007, 29 or 7 percent are 2006, 28 or 7 percent are 2013, and 14 or 3 percent are 2005.

Table 2

Type of Industry

Type of Industry	f	%
Architecture	4	1
Arts and Culture	3	1
Business and Trades	99	23
BPO's	97	23
Education	9	2
Engineering	2	0
Hotels and Restaurant	129	30
Industrial	78	18
Service	6	1
Total	**427**	**100**

As presented in Table 2, the distribution of respondents as to industry sectors as follows: 129 or 30 percent are hotels and restaurant, 99 or 23 percent are business and trades, 97 or 23 percent are BPO's, 78 or 18 percent are industrial, 9 or 2 are education, 6 or 1 percent are service, 4 or 1 percent are architecture, 3 or 1 percent are arts and culture, and 2 or 0 percent engineering.

Respondents of the Study were

Table 3

Respondents as to Gender

Gender	f	%
Male	235	55
Female	192	45
Total	**427**	**100**

As reflected in Table 3, the distribution of respondents as to gender as follows: 235 or 55 percent are male, and 192 or 45 percent are female.

Table 4

Respondents as to Age

Age Range	f	%
41 years old and above	16	4
36-40 years old	89	21
31-35 years old	67	16
26-30 years old	133	31
25 years old and below	123	29
Total	**427**	**100**

As depicted in Table 4, the distribution of respondents as to age as follows: 133 or 31 percent are aged 26-30 years old, 123 or 29 percent are 25 years old and below, 89 or 21 percent are 36-40 years old, 67 or 16 percent are 31-35 years old, and 16 or 4 percent are 41 years old and above.

Table 5

Respondents as to Civil Status

Civil Status	**f**	**%**
Single	199	47
Married	216	51
Widow/er	4	1
Annulled/ Separated	8	2
Total	**427**	**100**

As portrayed in Table 5, the distribution of respondents as to civil status as follows: 216 or 51 percent are married, 199 or 47 percent are single, 8 or 2 percent are annulled/ separated, and 4 or 1 percent are widow/er.

The profile of business graduates for the last ten years in terms of:

Table 6

Alumni as to Nature of Job

Nature of Job	**f**	**%**
Clerical	125	29
Technical	90	21
Supervisory	11	3
Managerial	123	29
Self – employed	78	18
Total	**427**	**100**

As manifested in Table 6, the distribution of respondents as to nature of job as follows: 125 or 29 percent are clerical, 123 or 29 percent are managerial, 90 or 21 percent are technical, 78 or 18 percent are self-employed, and 11 or 3 percent are supervisory.

Table 7

Respondents as to Employment Status

Employment Status	**f**	**%**
Regular	164	38
Part-time	79	19
Casual	67	16
Seasonal	27	6
Job order	90	21
Total	**427**	**100**

As identified in Table 7, the distribution of respondents as to employment status as follows: 164 or 38 percent are regular, 90 or 21 percent are job order, 79 or 19 percent are part-time, 67 or 16 percent are casual, and 27 or 6 percent are seasonal.

Table 8

Respondents as to Years of Service in the Present Position

Years of Service in the Present Position	f	%
11 years and above	22	5
6-10 years	290	68
1-5 years	92	22
1 year and below	23	5
Total	**427**	**100**

As shown in Table 8, the distribution of respondents as to years in the present position as follows: 290 or 68 percent are 6-10 years , 92 or 22 percent are 1-5 years, 23 or 5 percent are 1 years and below, and 22 or 5 percent are 11 years and above.

Research Instrument

The survey questionnaire is the primary instrument used to determine the employability skills and school experience of business graduate of EARIST. Part I of the questionnaire contained the demographic profile of the alumni. Part II contained the criteria for the assessment of the employability skills of business graduates, and impact of the school experience in the employment.

The self-made survey questionnaire was submitted to the adviser and panelists for comments and corrections. After some revisions, it was again submitted to the adviser for approval.

Data Gathering Procedures

The following procedures in gathering the needed data for the study:

1. Requested permission and approval from the adviser and the Dean of Graduate School and EARIST President where survey hold.

2. Administered the survey questionnaire to the two group of respondents thru personal and online.

3. Retrieved the survey questionnaire.

4. Tabulated, analyzed and interpreted the data thru the help of statistician.

5. Prepared the final copy for oral presentation.

Proposed Placement Program

Rationale

The understanding, skills and attributes necessary for students to develop her/his employability is the central features programs that have focused specifically on preparing business students for their adult roles which is being competent business professionals in the field of human resource management, marketing, office management, entrepreneurial management and business management.

Purpose

In responding to Eulogio 'Amang" Rodríguez Institute of Science and Technology (EARIST) the employability requirements by the industry as the result of the study will refocus in promoting employability skills and addressing the needs of the industry.

Objectives

In reviewing and clarifying priorities for business education. A *Curriculum* suggests that the *outcomes* of an effective program for business graduates who have:

- Teamwork skills (Interpersonal)
- Initiative/creativity

These outcomes, and the attributes and skills associated with them, are at the heart of enhanced employability – as they are for citizenship, enterprise and lifelong learning.

Person/Department Responsible

1. Dean and Area Chairs of College of Business Administration
2. Business Partners and Linkages

Activities

1. Dean and Area Chairs of the College of Business Administration

   - Seek partnership/linkages to Business Processing Outsourcing, Retail Industry, and/or business companies who will be the partner for the program who envisioned to be the employing companies of graduate business.
   - Formulate a Memorandum of Agreement that will have a contract, that will provide a training program to enhance the employability skills of business students, in exchange of employment of the
   - student trainees after the training.
   - Monitor and evaluate the program as to acceptability before, during and after the training program.

2. Business Partners

- Set criteria in selection of student trainees before the training, and simultaneously selection and absorb student trainees who passed the training outstandingly.

- Provide highly competitive professional employment program that will primarily focus on the teamwork, initiative and creativity.

Coverage

Employability skills are used from the findings of the study

- Employability skills required by the industry that business graduates should possess are Teamwork skills and Initiative/creativity.

- Other Employability skills as secondary requirements are Communication skills, Problem solving, Planning Self-Management, Learning skills, Technology.

Statistical Treatment of Data

In the analysis of data, the following statistical tools were used:

1. **Percentage**. This was used to establish a percentile rank that indicates the percentage of individuals who fall in a particular score.

$$\% = f/N \times 100$$

Where % = Percentage

f = Frequency of respondents

N= the total population

2. **Frequency**. It is the actual response to a specific item/question in the questionnaire where the respondents tick choices.

3. **Weighted Mean.** It is to aggregate a set of scores. It is the average computed by giving different weights to some of the individual values.

Formula : $$WM = \frac{\sum (w1f1 + w2f2 \ldots + wnfn)}{N}$$

Where:

WM = weighted mean

f1 = frequency of first

w1 = weight of first cell

f2 = frequency of second cell

w2 = weight of second cell

N = number of cases

4. **Likert Scale.** The data inferred by using the five (5) Likert Scale Method, as the standard which serve as the basis for the clarification of the data. The notion of the border of the numbers presented will be used as follows:

4.1. Employability Skills of Business Graduates

Scale	Range	Verbal Interpretation	Symbol
5	5.00 – 4.20	Highly Important	HI
4	4.19 – 3.40	Important	I
3	3.39 – 2.60	Moderately Important	MI
2	2.59 – 1.80	Least Important	LI
1	1.79 – 1.00	Not Important	NI

Ranking. This was used to reinforce the percentage to show the proportional importance of an item considered.

5. **t-test of Significant Difference between two Means.** This was used to determine whether or not significant difference exist between the perceptions of the experts and faculty. It is solved using formula.

Formula:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}}$$

Where:

$\bar{X}_1$ = mean of the 1st group

$\bar{X}_2$ = mean of the 2nd group

S_1^2 = standard deviation of the 1st group squared

S_2^2 = standard deviation of the 2nd group squared

N_1 = sample size (1st group)

N_2 = sample size (2nd group)

6. **Pearson Correlation Coefficient.** This was used to determine whether or not significant between the employability skills and impact on school experience of business graduates. It was solved using formula:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n(\sum x^2) - (\sum x)^2][n(\sum y^2) - (\sum y)^2]}}$$

Where:

x = teachers' competencies

y = academic performance of the students

n = number of sample

Guide in interpreting coefficient correlation

$\pm\mathbf{1.00}$	- Perfect correlation
$\pm\mathbf{0.91}\ \boldsymbol{to}\ \pm\mathbf{0.99}$	- Very High correlation Very dependable relationship
$\pm\mathbf{0.71}\ \boldsymbol{to}\ \pm\mathbf{0.90}$	- High correlation Marked relationship
$\pm\mathbf{0.41}\ \boldsymbol{to}\ \pm\mathbf{0.70}$	- Moderate correlation, Substantial relationship
$\pm\mathbf{0.21}\ \boldsymbol{to}\ \pm\mathbf{0.40}$	- Slight Correlation, but small relationship
$\pm\mathbf{0.01}\ \boldsymbol{to}\ \pm\mathbf{0.20}$	- Slight correlation, Small relationship

RESULT AND ANALYSIS

Requirements Analysis

The researcher study adopted a descriptive research method. The choice of the approach was based on the nature of the objective to be achieved in this study. On the perceived employability skills of business graduates, it was rated Highly Important with an overall weighted mean of 4.31. Six (6) items rated Highly Important, namely: learning skills with weighted mean of 4.50; planning with weighted mean of 4.43; communication skills with weighted mean of 4.40; problem solving with weighted mean of 4.40; technology skills with weighted mean of 4.36; self-management with weighted mean of 4.28; teamwork skills with weighted mean of 4.07; and initiative/ creativity with weighted mean of 4.07. ; On the significant difference on assessment on the employability skills of business graduates as assessed by alumni and industry sectors have obtained a t-value of 0.886 which was lower than the critical value of 1.645 with the degree of freedom of 2, 852 at 0.05 level of significance. Hence, there was no significant difference on the employability skills of business graduates as assessed by alumni and industry sectors. ; On the school experience of the business graduates employment was Highly Important rated with overall weighted mean of 4.56. All items rated Highly Important, such as: attitude towards work with composite weighted mean of 4.65; placement services with composite weighted mean of 4.61; and relevance of curriculum and school experience with composite weighted mean of 4.42; The impact of the school experiences to the business graduates employment was rated Highly Important with overall an weighted mean of 4.56. All items rated Highly Important, such as: attitude towards work with composite weighted mean of 4.65; placement services with composite weighted mean of 4.61; and relevance of curriculum and school experience with composite weighted mean of 4.42; On the significant relationship between employability skills and school experience of the business graduates employment the employability skills and curriculum and instructions of business graduates have obtained communication skills (0.32) and teamwork skills (0.31) have slight correlation which means there is small relationship. The significant relationship between employability skills and placement services of business graduates obtained r-values for communication skills (0.15). ; On the Proposed Placement Program, the output of the research study has been prepared for consideration for Enhanced Placement Program for the Business administration students.

User Study

Table 9

Summary on the Employability Skills of Business Graduates

Areas of Concern	Alumni		Industry Sectors		Composite Mean		Rank
	WM	**VI**	**WM**	**VI**	**WM**	**VI**	
1. Communication skills	4.63	HI	4.17	I	4.40	HI	3
2. Teamwork skills	3.93	I	4.21	HI	4.07	I	6
3. Problem Solving	4.66	HI	4.15	I	4.40	HI	3
4. Initiative/ Creativity	3.90	I	4.23	HI	4.07	I	6
5. Planning	4.66	HI	4.21	HI	4.43	HI	2
6. Self-Management	4.20	HI	4.35	HI	4.28	HI	5
7. Learning Skills	4.67	HI	4.32	HI	4.50	HI	1
8. Technology Skills	4.29	HI	4.43	HI	4.36	HI	4
Overall Weighted Mean	**4.37**	**HI**	**4.26**	**HI**	**4.31**	**HI**	

As portrayed in the table, the summary on the employability skills of business graduates rated highly important with composite weighted mean of 4.31. Six (6) items rated highly important, namely: learning skills with weighted mean of 4.50; planning with weighted mean of 4.43; communication skills with weighted mean of 4.40; problem solving with weighted mean of 4.40; technology skills with weighted mean of 4.36; self–management with weighted mean of 4.28; teamwork skills with weighted mean of 4.07; and initiative creativity with weighted mean of 4.07.

Sub-problem 2. Is there significant difference in the assessment of the abovementioned variables**.**

Table 10

Significant Differences on the Employability Skills of Business Graduates

Variable	t-value		Decision	Interpretation
1. Communication Skills	3.503		Reject Ho	Significant
2. Teamwork Skills	3.468		Reject Ho	Significant
3. Problem Solving	4.906		Reject Ho	Significant
4. Initiative/Creativity	2.771		Reject Ho	Significant
5. Planning	2.327		Reject Ho	Significant
6. Self-Management	0.678		Accept Ho	Not Significant
7. Learning Skills	1.853		Reject Ho	Significant
8. Technology	0.725		Accept Ho	Not Significant
Overall	**0.886**		**Accept Ho**	**Not Significant**

Legend: 2, 852; critical value of 1.645 @0.05 level of significance

As depicted in Table 10, The significant difference on assessment on the employability skills of business graduates as assessed by alumni and industry sectors have obtained a t-value of 0.886 which was lower than the critical value of 1.645 with the degree of freedom of 2, 852 at 0.05 level of significance. Hence, there was no significant difference on the employability skills of business graduates as assessed by alumni and industry sectors.

Data Interpretation

Respondents as to Gender

Gender	f	%
Male	235	55
Female	192	45
Total	**427**	**100**

The profile of business graduates for the last ten years in terms of:

Alumni as to Nature of Job

Nature of Job	f	%
Clerical	125	29
Technical	90	21
Supervisory	11	3
Managerial	123	29
Self – employed	78	18
Total	**427**	**100**

Sub-problem 3. How do the respondent assessed the school experience on the Business graduates in the employment.

Table 11

Assessment on the Impact of the School Experiences to the Business Graduates in the Employment as to Attitude towards Work

Areas of Concern	Alumni		Industry Sectors		Composite Mean		Rank
	WM	VI	WM	VI	WM	VI	
1. The school provides student/ graduates challenges to meet customers' requirements and ensure the growth of activity and finance results.	4.89	HI	4.64	HI	4.77	HI	1
2. The school develops in the student/ graduates the quality of work as well as in the implementation of new technologies and modern working methods.	4.83	HI	4.32	HI	4.58	HI	4
3. The school equipped student/ graduate necessary competencies.	4.95	HI	4.59	HI	4.77	HI	1
4. The school equipped student/ graduate with personal and professional competencies when striving to coordinate the objectives of an organization.	4.88	HI	4.27	HI	4.58	HI	4
5. The school develops in the student/ graduates clearing up personnel's interests and integrating various possibilities, which coordinate interests.	4.96	HI	4.32	HI	4.64	HI	2
6. The school develops in the student/ graduate that every employee is unique and an organization should create possibilities for the realization of individual interests.	4.78	HI	4.41	HI	4.60	HI	3
Overall Weighted Mean	**4.88**	**HI**	**4.43**	**HI**	**4.65**	**HI**	

The Overall assessment on the impact of the school experience on the business graduates in the employment. As to attitude towards work was rated highly important highly important with composite weighted mean of 4.65. All items rated highly important, and the school equipped student graduate with personal and professional competencies when striving to coordinate the objectives of an organization with weighted mean of 4.58.

Relevance of Curricula and School Experience; Co-Curricular

Table 12

Assessment of the School Experiences as to Co-Curricula

Areas of Concern	Alumni		Industry Sectors		Composite Mean		Rank
	WM	VI	WM	VI	WM	VI	
1. The curriculum is relevant in all aspect of employment	4.71	HI	4.75	HI	4.73	HI	1
2. The curriculum provides set of courses (subject) constituting areas of specialization.	4.16	I	4.44	HI	4.30	HI	8
3. The curriculum allows student/ graduate to acquire practical skills that help them when they enter the workforce.	4.34	HI	4.63	HI	4.49	HI	2
4. The curriculum provides practical life contexts to help the concepts "come alive".	4.26	HI	4.47	HI	4.37	HI	6
5. The curriculum incorporates practical skills that student/ graduate can apply thought out their lives and acquiring technology skills that will be useful in adult life.	4.39	HI	4.56	HI	4.48	HI	3
6. The curriculum taught student/ graduate to learn about local politics, they get a more concrete understanding of how government works at the state or national level.	4.21	HI	4.47	HI	4.34	HI	7
7. The curriculum provides learning supports and services school to meet the needs of students.	4.24	HI	4.53	HI	4.39	HI	5
8. The curriculum integrates personal relevance is connected to an individual student's interests, aspirations, and life experiences.	4.13	I	4.45	HI	4.29	HI	9
9. The curriculum provides life relevance is generally intended to equip students with practical skills, knowledge, and dispositions that they can apply in various career, and civic contexts thought their lives.	4.37	HI	4.44	HI	4.41	HI	4
Overall Weighted Mean	**4.31**	**HI**	**4.53**	**HI**	**4.42**	**HI**	

The overall assessment on the impact of the school experience on the business graduates in the employment as to relevance of curriculum and school experience rated highly important with composite weighted mean of 4.42. All items rated highly important, such as: the curriculum is relevant in all aspect of employment with weighted mean of 4.73; the curriculum provides set of courses (subject) constituting areas of specialization with weighted mean of 4.30; and the curriculum integrates personal relevance is connected to an individual student's interests, aspirations, and life experiences with weighted mean of 4.29.

Extra-Curricular

Table 13

Assessment on the Impact of the School Experiences to the Business Graduates in the Employment as to Placement Services

Areas of Concern	Alumni		Industry Sectors		Composite Mean		Rank
	WM	VI	WM	VI	WM	VI	
1. School placement service is helpful for job seeking by the student/ graduate.	4.77	HI	4.59	HI	4.68	HI	2
2. School placement service assigned person to assist student/ graduate to suitable place for job seeking.	4.90	HI	4.32	HI	4.61	HI	4
3. The placement services help the person or alumni find right kind of job that should be their liking.	4.86	HI	4.09	I	4.48	HI	6
4. School placement services help the student/ graduate who works, earn and learn.	4.90	HI	4.36	HI	4.63	HI	3
5. The school placement service has an organizational community by assisting student/ graduate.	4.86	HI	4.55	HI	4.71	HI	1
6. The school placement service encourages student/ graduate to develop valuable strategies in their work.	4.90	HI	4.27	HI	4.59	HI	5
Composite Weighted Mean	**4.87**	**HI**	**4.36**	**HI**	**4.61**	**HI**	

The overall assessment on the impact of the school experience on the business graduates in the employment as to placement services rated highly important with composite weighted mean of 4.61. All items rated highly important, namely: valuable strategies in their work with weighted mean of 4.59; and the placement services help the person or alumni find right kind of job that should be their liking with weighted mean of 4.48.

Table 14

Summary on the Impact of the School Experiences to the Business Graduates in the Employment

Areas of Concern	Alumni		Industry Sectors		Composite Mean		Rank
	WM	VI	WM	VI	WM	VI	
1. Curriculum and Instruction	4.88	HI	4.43	HI	4.65	HI	1
2. Co-Curricula	4.31	HI	4.53	HI	4.42	HI	3
3. Extra curriculum	4.87	HI	4.36	HI	4.61	HI	2
Composite Weighted Mean	**4.69**	**HI**	**4.44**	**HI**	**4.56**	**HI**	

The summary on the impact of the school experiences to the business graduates in the employment rated highly important with overall weighted mean of 4.56. All items rated highly important, such as: Curriculum and Instruction with composite weighted mean of 4.65; placement *services with composite weighted mean of 4.61; and relevance of curriculum and school experience with composite weighted mean of 4.42.*

Sub-problem 4. Is there significant relationship between the employability skills and school experience of business graduates.

Table 15

Significant Relationship between the Employability Skills and Curriculum and Instructions of Business Graduates

Areas of Concern	r-value	Decision	Interpretation
1. Communication Skills	0.32	Slight Correlation	Small Relationship
2. Teamwork Skills	0.31	Slight Correlation	Small Relationship
3. Problem Solving	0.61	Moderate Correlation	Substantial Relationship
4. Initiative/Creativity	0.61	Moderate Correlation	Substantial Relationship
5. Planning	0.57	Moderate Correlation	Substantial Relationship
6. Self-Management	0.55	Moderate Correlation	Substantial Relationship
7. Learning Skills	0.64	Moderate Correlation	Substantial Relationship
8. Technology	0.63	Moderate Correlation	Substantial Relationship

the significant relationship between the employability skills and placement services of business graduates have obtained the r-values: communication skills (0.15), teamwork skills (0.35), problem solving (0.39), initiative/creativity (0.40), planning (0.37), self-management (0.34), and learning skills (0.39) have slight correlation which means there is small relationship. On the other hand, technology (0.41) has moderate correlation which means there is substantial relationship.

CONCLUSION AND RECOMMENDATION

Conclusion

The researcher used descriptive survey research method technique. The use of surveys in educational fact-finding because they provide a great deal of accurate information. The intention of survey research is to gather data at a particular point in time and to use it to describe existing conditions. Percentage. This was used to establish a percentile rank that indicates the percentage of individuals who fall in a particular score. % = f/N x 100, Frequency, Weighted Mean, Likert Scale. Ranking, t-test of Significant Difference between two Means. Pearson Correlation Coefficient. ; Among the employability skills of business graduates, learning skills, planning, communication skills, problem solving, technology skills, self–management were considered primary skills that business graduates should possess; on the other hand, teamwork skills and initiative/creativity are the secondary employability skills required.; The Alumni and industry sectors believed that the primary employability skills must be focused and enhanced among the business students.; Attitude towards work, placement services and relevance of curriculum should a high extent to the school experience among business graduates.; Relevance of curriculum have a significant effect to the employability skills of business graduates.; The proposed placement program was prepared to expose and enhance the business students to be highly employable.

Recommendations

Among business graduates. The college should give emphasis, on the most required employability skills for business graduates through integration in the curriculum. To the faculty, incorporate all the employability skills in every output of the subject.

To the administrators, continue develop among students the right attitude towards works; School Placement Service should function as prescribed in the School Charter.

Future researchers, and business students should be exposed to vary as activities within and beyond the campus.; include the seminar and workshop in the curriculum to be able to gain enough information on the current trends in business. Pursue the management should consider for implementation the proposed placement program to be able to expose the business students to the real world of business.

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WORKING ATTITUDES AND INTERPERSONAL RELATIONS OF EARIST NON-TEACHING EMPLOYEES TOWARDS JOB PERFORMANCE

Charlene U. Escario

INTRODUCTION

The attitude of an individual is best to understand through mental process, emotions, and feelings of the person's behavior in relation to work environment by means of collective perception of the respondents. Martinez (1991) stated that this orientation suggested a way to relate individual with respect to his attitude toward work and interpersonal relation.

Individual behavior has extended its influence to attitude in three ways: It has replaced the mechanical concept of stimuli and responses with functional concept that emphasizes the meaningfulness of stimulating of working condition, it has introduced a method of using the knowledge to work; and finally, it has demonstrated that behavioral concepts and principles can be applied to many practical interpersonal relationship.

However, attitude has a link between one's confident with his ability to do a job – feeling competent. Work attitude are they key to work performance while interpersonal relations have tremendous impact on work situation. Thus, the many ways employees interrelate among themselves and with their superiors may influence in considerable degree of work attitude and may determine the efficiency of performance in the job.

Interpersonal relations at work serve a critical role in the development and maintenance of trust and positive feelings in a farm organization. Although the quality of interpersonal relationships alone is not enough to produce worker productivity, it can significantly contribute to it. It correlates the principles of human relation which is being defined as the way in which a person interacts with other people. It described skills, which is an ability of an individual to work effectively with other people. This is a process by which people gets ideas, instructions, and attitudes from others and simply providing linking pin between two individuals and group. Interpersonal relationship refers to individuals with similar tastes and mindsets entering into an association. Individuals who share identical goals and interests enter into an interpersonal relationship. It is essential for individuals in a relationship to get along well.

All of these are reflective to one's behavioral pattern. There are varieties of factors that can influence a person's attitude: the person's motivation, which refers to the initiations, direction, intensity, and persistence of human behavior. The employee must feel that what they are doing is meaningful in terms of their own set of values, and must feel personally responsible for the outcome. How meaningful the work being carried of doing it depends on three of these dimensions: the acquired knowledge, physical, and ability.

For the above reasons, the researchers are encouraged and challenge to undertake this study to be able to know the attitude toward work and interpersonal relation of their job performance as prescribed by the selected respondents working at the offices.

Statement of the Problem

This study aimed to assess working attitude and interpersonal relation toward job performance of EARIST Non – Teaching Employees. Specifically, it sought to answer the following specific problems:

1. How does the respondents assessed the perceived working attitude of Non-Teaching Employees in terms of :

    1.1 Job Satisfaction
    1.2 Job Involvement
    1.3 Organizational Commitment

2. How does the respondents assessed the effect of Interpersonal Relation to job performance of EARIST Non-teaching Employees in terms of :

    2.1 Harmonious relation to Co-Worker
    2.2 Harmonious relation Superior
    2.3 Harmonious relation Harm Clients

3. Is there any significant relationship between perceived working attitude and interpersonal relation of the respondents?

4. Based on the results of the study, what intervention scheme program may be proposed?

Hypothesis

There is significant relationship between perceived working attitude and interpersonal relations of the EARIST Non-Teaching Employees.

Conceptual Framework

Research Paradigm

Gathered data were sorted out, evaluated and tabulated for easy analysis in preparation for a statistical measurement. Results of statistics were interpreted for its worthiness and guide in the making of findings, conclusions, and recommendations.

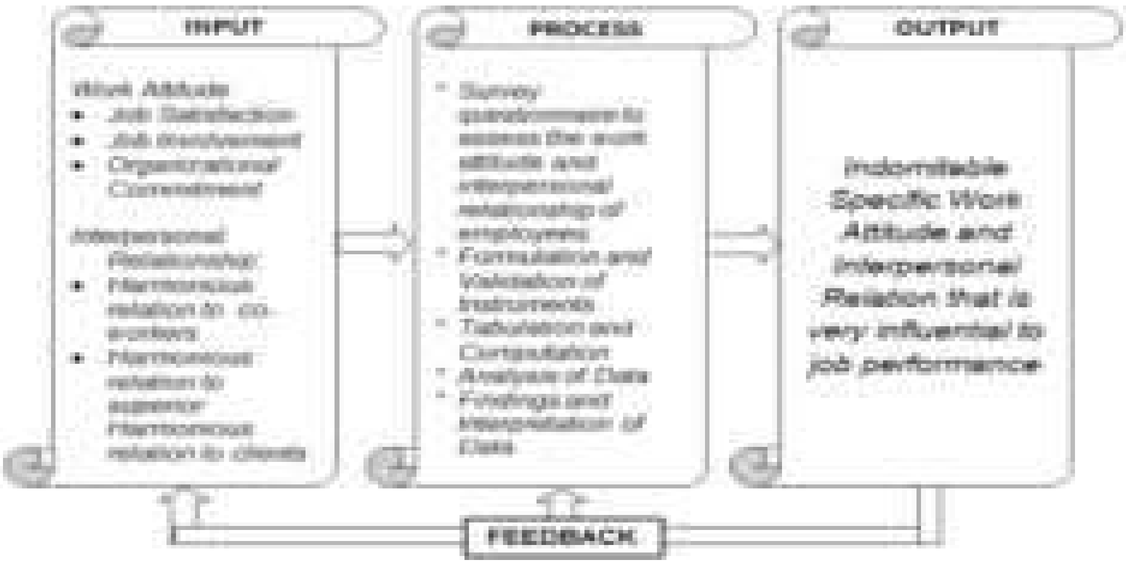

Figure 1. A Modified IPO Model on Working Attitude and Interpersonal Relation toward Quality Job performance of EARIST Non – Teaching Personnel.

The Input, (I) Block will be the work attitude such as job satisfaction, job involvement and organizational commitment, interpersonal relations to co-workers, superior and to clients.

In the Process (P) Block, documentary analysis was undertaken. The distribution and retrieval of survey questionnaire were also undertaken to collect data as perceived by the respondents.

The Output (O) Block provides the expected result, which is an indomitable specific work attitude and interpersonal relation of the non-teaching employees that is very influential to the quality job performances.

Objectives of the Study

The general objective of the study is determine the working attitude and interpersonal relation toward quality job performance of EARIST Non – Teaching Personnel. Specifically, it sought to answer the following specific problems:

Specifically the researchers intend to:

1. Determine the perceived working attitude of the respondents to the job satisfaction, job involvement and organizational commitment.

2. Determine the perceived effects of interpersonal relation to harmonious relation to co-workers, superior and clients.

3. Determine the relationship of respondent's working attitude and interpersonal relation.

4. Recommend the indomitable working attitude that creates favorable results to job performance.

Significance of the Study

The research study in assessment of leadership style and management functions of college administers find significant to determine the effects of leadership style in performing their functions as leaders in the organization; as well as its impact to the level of productivity and efficiency in performing their job.

Furthermore, it is vital to faculty and students as it becomes the tool for development advancement and knowledge reliability for empowerment and influences of two parties.

METHODS OF RESEARCH

This chapter presented the method of research used, sampling design and sample research instruments used, data gathering procedures and statistical treatment of data.

This study used the descriptive method of research. It aimed to know and analyzed the attitude toward Work Attitude and Interpersonal Relation toward Quality Job Performance of Non- Teaching Personnel.

In descriptive method, Calmorin (1994) as cited by Bagayana (2006) wrote the study focused on the present condition. The purpose is to find new truth, which may come in different forms such as increased quantity of knowledge, a new generalization, or increased insights into factors, which are operating, the discovery of a new causal relationship, a more accurate formulation of the problem to be solved and many others.

The researchers treated the data gathered through documentary analysis, observation, and survey questionnaire. By this method, the researchers would be able to collect data from the respondents.

Research Procedures and Sampling Design

The researchers are distributed the survey questionnaires to fifty (50) target respondents consisting of office administration staff and other office employees from the various colleges in EARIST and used of the convenience purposive sampling method.

Research Instrument Used

Research Design

The study adopted a survey research technique. The intention of survey research is to gather data at particular point in time and use it to describe existing conditions. The descriptive nature of research was used to determine how the work attitude and interpersonal relations affects the job performance of employees.

Furthermore, the relevance and appropriateness of the method to the study involve description, recording ad analysis of data on the prevailing assessment of the selected respondents. The process used descriptive statistics, techniques and numeric measures. Moreover, the process of the descriptive research went beyond mere gathering and tabulation of data. It involves the elements and interpretation of the meaning and significance of what is to be described.

Sample and Procedures

Population and Sampling

The study is limited to the EARIST Non-Teaching personnel of EARIST Manila. The selections of the respondents are in done through purposive sampling.

Research Instrument

The researchers validated the questionnaire by asking help and assistance of Director of Non-Teaching Personnel of each office through honest assessment content validity questionnaire. Beforehand, the researcher requested the Chief of Human Resource Management for the approval to administer the survey questionnaires to the different agency.

The researchers standardized survey questionnaire was used to determine the work attitude and interpersonal relation to job performance of employees gather data from the respondents. The content of the questionnaire are as follows:

Part I. Assessment of perceived work attitude and interpersonal relation as its affects their quality job performance.

Part II. Assessment on the perceived Interpersonal Relation of EARIST Non-Teaching Personnel co-worker, superior, and clients.

The following were undertaken as procedures in the gathering of data from the respondents.

1. Requested permission and approval of the letter from the Chief of the Human Resources.

2. Administered the survey questionnaire to the group of respondents.

3. Retrieved the survey questionnaire.

4. Tabulated, analyzed and interpreted the data thru help of statistician.

Statistical Treatment of Data

In the analysis of data, the following statistics was used.

1. Percentage Method. This was used to determine size of the respondents in a given area.

Formula:

$$P = \frac{\mathrm{f}}{\mathrm{n}} \times 100\%$$

Where:

P = Percentage

f = Frequency

n = sample size of the respondents

2. Weighted Mean. This was used in analyzing the result of responses to questionnaire by the respondents in terms of rating made to factor of work attitude and interpersonal relation of employee as its affect their job performance.

Formula:

$$\overline{X} = \frac{\sum fw}{\sum \mathrm{f}}$$

Where:

$\overline{X}$ = Weighted Mean

$\sum fw$ = Summation of the product of the frequency and the weights

$\sum \mathrm{f}$ = summation of the frequency or the sample size

3. Likert Scale. The data inferred by using the five (5) likert scale method, as the standard which serve as the basis for the clarification of the data. The notion of the border of the numbers presented will be used. The summated rating scale below used to interpret the responses.

Rate	Verbal Interpretation	Range
5	Strongly Agree	4.5 - 5.0
4	Moderately Agree	3.5 - 4.4
3	Agree	2.5 - 3.4
2	Disagree	1.5 – 2.4
1	Strongly Disagree	1.0 – 1.4

4. Ranking. This was used to reinforce the percentage to show the proportional importance of an item considered.

5. Person Correlation Coefficient. To test the level of significance between the perceptions of the respondents, the Pearson r was employed to determine the relationship of factors as given.

The formula of Pearson r is

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n(\sum x^2) - (\sum x)^2][n(\sum y^2) - (\sum y)^2]}}$$

Where:

$\sum xy$ = summation of the product of x variable and y variable

$\sum x^2$ = summation of the squares of the values of x variable

$\sum x$ = summation of the values of x variable

$\sum y^2$ = summation of the squares of the values of y variable

$\sum y$ = summation of the values of y variable

n = number of pairs

Guide in interpretation coefficient correlation.

± 1.00	- Perfect correlation
± 0.91 to ± 0.99	- Very High correlation Very dependable relationship
± 0.71 to ±0.90	- High correlation Marked relationship
± 0.41 to ± 0.70	- Moderate correlation Substantial relationship
±0.21 to ± 0.41	- Slight Correlation But small relationship
±0.01 to ±0.20	- Slight correlation Slight relationship

RESULTS AND ANALYSIS

Requirements Analysis

The research study adopted is descriptive research method. The choice of the approach is based on the nature of the objective to be achieved in this study. perceived work attitude of EARIST Non-Teaching Personnel which majority of the perceptions of respondents belong to job involvement which has a weighted mean of (4.54) and interpreted as “Strongly Agree” followed by organizational commitment which has a weighted mean of (4.49) and interpreted as “Moderately Agree” and the least belong to job satisfaction which has weighted mean of (4.44) and interpreted as “Moderately Agree”. As a result the overall composite mean of (4.49) was interpreted by the respondents as “Moderately Agree”. on the perceived interpersonal relation of EARIST Non-Teaching Personnel which majority of the perceptions of respondents belong to harmonious relation to costumer or client which has a weighted mean of (4.44) and interpreted as “Moderately Agree” followed by harmonious relation to superior which has a weighted mean of (4.41) and interpreted as “Moderately Agree’ and the least belong to harmonious relation to co-worker which has weighted mean of “4.36” and interpreted as (Moderately Agree). As a result, the overall composite mean of (4.49) was interpreted by the respondents as “Moderately Agree”. As shown results of relationship between perceived work attitude and interpersonal relationship of the respondents in terms of harmonious relation to client’s three (3) items have obtained r-values of .386, .379, and .336 which are higher on the critical value of 0.197 at 0.05 level of significance and were interpreted as significant rejecting the hypothesis. The researcher recommends three management development interventions: role playing, team building, and survey feedback.

Role playing is the most spontaneous acting out of a real-life situation. It is one of the most common forms of training used in organizational development. It consists of the acting out of a realistic situation that involves two or more people. The purpose of the training is to acquaint one or more of the participants with the proper way of handling a given situation. As the two people begin acting out their roles, the rest of the participants watch. When the scene is over, the trainer and the participants all have the opportunity to give their analysis of what each said and did. Then the trainer gives the participants and the other members of the group some do’s and don’ts for handling similar situation.

The benefit of role playing, as a management development intervention, is that, it puts the participants in a situation that they are likely to face in the future, give them a chance to react to the situation, and then provides feedback on performance. When these people return to the real work environment and face a similar situation they experience less tension and anxiety regarding how to handle the matter because for all practical purposes, they have been in that situation before. Team building as currently the most popular form of organization development consists of approaches directed toward improving the effectiveness of regular work group. There are a number of different team-building interventions. Some of these focus on intact, permanent work teams, and others are directed special terms or newly constituted wok groups. The researcher recommends survey feedback as a management development intervention of this study. As an OD intervention, survey feedback is based on the collection of data and the feeding back of this information to the organizational personnel. The techniques entails three distinct steps: 1) a systematic collection of data on the current state of organization, usually obtained through questionnaires, interviews or both, 2) a feedback of the findings to the organizational personnel, and 3) the development of an action plan for dealing with the problem that have been identified.

User Study

Sub-problem No. 1 What is the perceived work attitude of EARIST Non-Teaching Personnel to the following variables; job satisfaction, Job involvement, and organizational commitment.

Table 1

Summary on the Perceived Work Attitude of EARIST Non-Teaching Personnel

Work Attitude	Weighted Mean	Verbal Interpretation	Rank
Job Satisfaction	**4.44**	Moderately Agree	3rd
Job Involvement	**4.54**	Strongly Agree	1st
Organizational Commitment	**4.49**	Moderately Agree	2nd
COMPOSITE MEAN	**4.49**	**Moderately Agree**	

Table 1 shown the summary on the perceived work attitude of EARIST Non-Teaching Employees which majority of the perceptions of respondents belong to job involvement which has a weighted mean of (4.54) and interpreted as "Strongly Agree" followed by organizational commitment which has a weighted mean of (4.49) and interpreted as "Moderately Agree" and the least belong to job satisfaction which has weighted mean of (4.44) and interpreted as "Moderately Agree".

As a result the overall composite mean of (4.49) was interpreted by the respondents as "Moderately Agree".

Sub-problem No. 2 What is the perceived Interpersonal Relation of EARIST Non-**Teaching Personnel co-worker, superior, and clients**

Table 2

Summary on the Interpersonal Relation of EARIST Non-Teaching Personnel

Harmonious Relation to:	Weighted Mean	Verbal Interpretation	Rank
Co-Worker	**4.36**	Moderately Agree	3rd
Superior	**4.41**	Moderately Agree	2nd
Clients	**4.44**	Moderately Agree	1st
COMPOSITE MEAN	**4.49**	**Moderately Agree**	

Table 2 shown the summary on the perceived interpersonal relation of EARIST Non-Teaching Personnel which majority of the perceptions of respondents belong to harmonious relation to costumer or client which has a weighted mean of (4.44) and interpreted as "Moderately Agree" followed by harmonious relation to superior which has a weighted mean of (4.41) and interpreted as "Moderately Agree' and the least belong to harmonious relation to co-worker which has weighted mean of "4.36" and interpreted as (Moderately Agree).

As a result, the overall composite mean of (4.49) was interpreted by the respondents as “Moderately Agree”.

Sub-problem No. 3 Is there any significant relationship between perceived work attitude and interpersonal relationship of the respondents?

Table 3

Relationship between Perceived Work Attitude and Interpersonal Relationship of the Respondents in Terms of Harmonious Relation to Co-workers

Work Attitude	r-value	Critical Value	Decision	Interpretation
Job Satisfaction	.250	0 .197	Reject Ho	Significant
Job Involvement	.382	0 .197	Reject Ho	Significant
Organizational Commitment	.524	0 .197	Reject Ho	Significant

As shown in Table 3, three (3) items have obtained r-values of .250, .382, and .524 which are higher on the critical value of 0.197 at 0.05 level of significance and were interpreted as significant rejecting the hypothesis.

According to Mullins (2012), harmonious working relationships and good teamwork help make for a high level of staff morale and work performance. The capacity to form good relationships is dependent upon the effectiveness of individual interpersonal skills. A climate of openness and trust will help to faster good working relationships and strengthen the team abilities through cooperation and mutual support.

Data Interpretation

Table 4

Relationship between Perceived Work Attitude and Interpersonal Relationship of the Respondents in Terms of Harmonious Relation to Superior

Work Attitude	r-value	Critical Value	Decision	Interpretation
Job Satisfaction	.193	0 .197	Fail to reject Ho	No significance
Job Involvement	.372	0 .197	Reject Ho	Significant
Organizational Commitment	.294	0 .197	Reject Ho	Significant

As shown in Table 4, two (2) items have obtained r-values of .372 and .294 which are higher on the critical value of 0.197 at 0.05 level of significance and were interpreted as significant rejecting the hypothesis while the other one (1) resulted with r-value of .193 which is lower on the critical value interpreted as not significant fail to reject the hypothesis.

According to Feliciano (2013), there is satisfaction in the job when employee believes of feels that: (a) He recognized by his superior, his clients or peers in the job, or the general public: (b) he is successfully completed a job, solves a problem related to his work, feels relieved when his grievance are heard and sees the result of his work: (c) there is a possibility of growing in one’s job such that one would be able to rise in the company or organization.

Moreover, Caspe - Clarke, Milagros (2012), stated in her study that attitudes is increasingly sold as being the key to achieving such quality work but also as means to enhance the motivation. To analyze this view it should briefly look first at manager's attitude as basis of organizational culture.

Table 5

Relationship Between Perceived Work Attitude and Interpersonal Relationship of the Respondents in Terms of Harmonious Relation to Clients

Work Attitude	r-value	Critical Value	Decision	Interpretation
Job Satisfaction	.386	0.197	Reject Ho	Significant
Job Involvement	.379	0.197	Reject Ho	Significant
Organizational Commitment	.336	0.197	Reject Ho	Significant

As shown in Table 5, three (3) items have obtained r-values of .386, .379, and .336 which are higher on the critical value of 0.197 at 0.05 level of significance and were interpreted as significant rejecting the hypothesis.

According to Perlitz (2014), working relationship can be fragile especially in the workplace where they are often built and destroyed by the actions we take. Building healthy secure and harmonious relationships is important not only to us personally, organizations not only function with the cooperation of the members - staffs are at the coal face of the organization, fulfilling all the functions necessary to ensure success.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

The researchers, after thoroughly evaluated its findings, concluded that:

1. The assessments of respondents were truly product of their own personal analysis but forwarded it in a professional manner without totally dragging the variables of the aforementioned indicators into very low ratings.

2. The assessment of the respondents based on their honest perceptions as indicated in the survey manifested greatly that there is significant relationship between the perceived work attitude and interpersonal relationship, therefore the significant reject the hypothesis. It is also shows that there is only one perception that there is no significant relationship; therefore the null hypothesis raised in Chapter 1 is hereby accepted.

3. The entire assessment made by the respondents proves that there is still a need of improvements to make in terms of harmonious relation to superior as to job satisfaction.

4. There is an indication that the prevailing work attitude of the workers is positive or favorable as to their feelings, concepts and disposition to act or perform their roles. This positive work attitude of the respondents signifies that any task is not a burden as long as it is honorable, not tiring or boring and there is a purpose and meaning of what they do.

5. The culture in EARIST is quite healthy when comes to work atmosphere.

Recommendations

From the findings and conclusions made, the researchers drew the following recommendations:

1. It is recommended that work management/administrator should look into the conditions of their employees so as not to be considered exploited and neglected by giving them what is due to them in terms of work condition to further improve their work attitude.

2. It is also recommended that with the advent of Management course in the Philippine education, employees should be considered as a gateway of better management of working condition, proper work attitude and interpersonal relation as a key to camaraderie.

3. It is strongly recommended that role playing, team-building and survey feedback can be used by the school leadership as organizational development interventions for trouble shooting school problems and conflict resolution so as to promote social bonding between and among college deans, service directors, faculty, staff, students and stakeholders.

4. It is being recommended to the school management three ways or approaches to develop and enhance organizational commitment in the school, namely*: 1) Enriching jobs by empowering as well as delegating tasks to subordinates; 2) Align the interests of the Organization with those of the employees (faculty and staff); and 3) Recruitment and selection of employees whose values closely match those of the organization.*

5. The administration should continue providing the necessary facilities, improvement and other incentives for greater personnel productivity.

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THE IMPACT OF CYBER BULLYING TO STUDENT'S LEARNING DEVELOPMENT ON SELECTED AREAS IN MANILA

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Rosemarie R. San Luis

INTRODUCTION

As technology has become more advanced, cyber bullying is now able to occur from several outlets including cellular phones, internet chat rooms, online blogs, e-mails, and instant messaging. Many individuals find themselves spending countless hours using some form of digital technology. Cyber bullying is one such problem that the advancement in technology and social media has generated. It can potentially affect not only school-aged children but also any individual who has access to a mobile phone or the Internet.

Camarines Sur Rep. Rolando Andaya proposed a House Bill 5718 to define and penalize the crime of cyber bullying. This bill entitled "Anti-Cyber bullying Act of 2015" encourages people to become responsible netizens and making them accountable for their "cyber actions". Under the measure, those who will be found guilty of cyber bullying shall be fine a penalty of P50,000.00 but not more than P100,00.00 and imprisonment of not less than six months but not more than six years, or both. It also entails the Commission of Information and Communications Technology (CICT), Department of Justice (DOJ), and the Department of Interior and Local Government (DILG) to jointly create necessary rules and regulations within 90 days upon approval of the act for its effective implementation. The bill was submitted to CICT chaired by First District Rizal Rep. Joel Roy Duavit for proper consideration and action (GMA News, 2015)

Cyber bullying can happen accidentally. The impersonal nature of text messages, IMs, and emails make it very hard to detect the sender's tone. One person's joke could be another's hurtful insult. Nevertheless, a repeated pattern of emails, text, and online posts is rarely accidental. Despite the absence of physical contact or audible insults, cyber bullying can be even more traumatizing than traditional forms of bullying. Through social media and mobile communications, bullying can now potentially be viewed by all a person's family, friends, and acquaintances. Traditionally more likely to be bullied are lesbian, gay, bisexual, transgender (LGBT), students and racial/ethnic minorities. As a result, the embarrassment, shame, and other more severe consequences of bullying become even more severe.

STATEMENT OF THE PROBLEM

The study aims to determine the impact of cyber bullying to students learning development.

Specifically, it seeks to answer to the following questions.

1. What is the demographic profile of respondents in terms of:

   1.1 Age;
   1.2 Gender;
   1.3 Civil Status;

2. What are the effects of cyber bullying to students in terms of:

2.1 Educational Development;
2.2 Social Development;
2.3 Personal Development; and
2.4 Emotional Development.

3. Is there a significant difference between the responses of respondents in terms of the aforementioned variables?

4. What solutions offered by the respondents to prevent cyber bullying to the students?

5. Based from the findings, what Intervention Scheme may be proposed to prevent cyber bullying?

Materials and Methods

To gather important information for this research, the researchers used descriptive approach, research environments, research instruments, and data gathering procedures and data analysis. This research design will be used to collect and utilize data so that desired information can be attained with sufficient accuracy.

The respondents of the study were chosen through purposive sampling technique. Only students from the various District of Manila are considered respondents in this investigation composing at least one-hundred (100).

The data gathered were compiled, collated and summarized separately per group. The responses for each item were categorized based on the specific problems raised.

The following were utilized in the treatment of the data:

Frequency and Percentage. It is the actual response to a specific item or question in the questionnaire were the respondent ticks his choice. This was used as a descriptive statistic or something that describes a part of the whole. The Formula is:

$$\% \frac{f}{N} x\,100$$

Where:

% = percentage
f = frequency
N = total number of respondents

Weighted Mean. This was used to measure the respondent's assessments. Multiplying each value in the group by the appropriate weight factor does it and the product is summed up and divided by the total number of respondents.

$$x = \sum \frac{(f) - (w)}{2}$$

Where:

X = Weighted Mean
∑ = Summation
N = Number of respondents
f = frequency
W = Weighted factor

Five-point Likert Scale. This method is used to rank the answer of the respondents per question to interpret the impact of cyber bullying to student's learning development

SCALE	Weighted Average Range	Descriptive Equivalent
5	4.50 – 5.00	Highly Affected
4	3.50 – 4.49	Affected
3	2.50 – 3.49	Moderately Affected
2	1.50 – 2.49	Least Affected
1	1.00 – 1.49	Not Affected

t-test. This was used to determine the significant differences on the responses of males and females respondents on the impact of cyber bullying.

$$SD = \frac{\sqrt{\sum(x-x)2}}{N-1}$$

SD = standard deviation
∑ (x-x) 2 = summation of mean squared deviation
N = no. of cases

a. Standard Deviation

∑ D2

SD = standard deviation
∑D2 = sum of the difference

b. In variance squared (x-x)

$$t = \frac{x_1 - x_2}{\sqrt{\frac{S_12}{N_1} + \frac{S_22}{N_2}}}$$

X1 = mean of the first group
X2 = mean of the second group
S_1^2 = standard deviation of the first group
S_2^2 = standard deviation of the second group
N_1 = sample size (1st group)
N_2 = sample size (2nd group)

RESULTS AND DISCUSSION

Table 1

Frequency and Percentage Distribution of Respondents According to Gender

Group	Frequency	Percentage
Male	50	50%
Female	50	50%

Table 1 exhibits the groups of respondents composed of the following fifty (50) male and fifty (50) female students.

Table 2
Frequency and Percentage Distribution of Respondents According to Age

Age Range	Male		Female		Total	
	Frequency	%	Frequency	%	Frequency	%
31 above	0	0	0	0	0	0
26 – 30 years old	0	0	1	2	1	1
21 – 25 years old	19	38	17	34	36	36
16 – 20 years old	31	62	32	64	63	63
Total	**50**	**100**	**50**	**100**	**100**	**100**

Table 2 exhibits that the lower the age ranges has higher impact of cyber bullying to individuals learning development, while the higher the age ranges the less impact of cyber bullying to the learning development of an individual.

This implies that the perceptions of the respondents to cyber bullying when grouped according to Age have different level of implications to ones' learning development.

Sub-problem No. 2: What are the effects of cyber bullying on students in terms of:

Table 3

Significant difference relationship between the Assessment of Effects of Cyber bullying to students

Effects of Cyber Bullying	Male		Female		Composite	
	Weighte	Verbal	Weighte	Verbal	Weighte	Verbal
1. Educational Development	3.35	MA	3.5	A	3.42	A
2. Social Development	3.32	MA	3.35	MA	3.34	MA
3. Personal Development	3.23	MA	3.3	MA	3.27	MA
4. Emotional Development	3.38	MA	3.17	MA	3.27	MA
Overall Composite Weighted Mean	**3.32**	**MA**	**3.33**	**MA**	**3.327**	**MA**

Table 3 exhibits an overall assessment of male and female on the effects of cyber bullying on students rated as moderately affected with a composite weighted mean of 3.32. All items rated as moderately affected, namely: emotional development with a weighted mean of 3.38; educational development with a weighted mean of 3.35; social development with a weighted mean of 3.32; and personal development with a weighted mean of 3.23.

Further, the overall assessment of female on the effects of cyber bullying on students rated as moderately affected with a composite weighted mean of 3.33. One (1) item rated as affected, namely: educational development with a weighted mean of 3.5. Four (4) items rated as moderately affected, namely: educational development with a weighted mean of 3.35; social development with a weighted mean of 3.35; personal development with a weighted mean of 3.3; and emotional development with a weighted mean of 3.17.

By and large, the overall assessment of male and female on the effects of cyber bullying on students rated as moderately affected with overall composite weighted mean of 3.3.27.

Relatively, cyber bullying actions may include the wide dissemination of: (1) embarrassing information (true or fabricated) about individuals, their families and/or friends; (2) confidences intended for the sender alone; (3) photographs taken with or without consent of the subject; (4) videos clips taken without consent or made by the victim for a select audience; and (5) social exclusion can also be practiced on victims by cyber bullies influencing groups to 'block' someone from their list of friends/contacts.

Sub-problem No. 3: Is there a significant difference between the responses of respondents in terms of aforementioned variables.

Table 4

Significant Differences in the Assessment of the Effects of Cyber bullying

Areas of Concern	df	Level of Significance	t-value	Critical Value	Decision	Interpretation
1. Educational Development	12	0.05	-1.25	1.660	Accepted Ho	Not Significant
2. Social Development	12	0.05	-0.28	1.660	Accepted Ho	Not Significant
3. Personal Development	12	0.05	-0.515	1.660	Accepted Ho	Not Significant
4. Emotional Development	12	0.05	1.478	1.660	Accepted Ho	Not Significant
Overall			**0.022**	**1.660**	**Accepted Ho**	**Not Significant**

df = 12 at 5% level of significance

As manifested in Table 4, the computed t-value on the assessment of male and female on the effects of cyber bullying on students are as follows: emotional development (1.478), social development (-0.28), personal development (-515), and educational development (-1.25) which are lower than critical value of 1.660 at 5% level of significance with the degree of freedom of 12. It can be noted that the null hypothesis was accepted which means that there is no significant difference on the assessment of male and female students on the effect of cyber bullying. Therefore, the hypothesis is accepted.

CONCLUSIONS AND RECOMMENDATIONS

Based on the finding of the study, the following conclusions are drawn:

1. The respondents are generally equal 50 male and 50 female, 16 to 20 years old, single.

2. Both groups of respondents differed in their assessment of the effects of cyber bullying in Educational Development.

3. Both groups of respondents have almost the same assessment of the effects of cyber bullying in terms of Social Development, Personal Development and Emotional Development.

4. No significant difference existed in the assessment of the respondents in the effects of cyber bullying.

5. Both respondents agreed to the solutions to prevent cyber bullying.

Based on the findings and conclusions presented, the following recommendations are suggested:

1. Develop and promote a -written policy which rules out bullying in the colleges and universities.

2. Students must be aware and have training or seminars about cyber bullying.

3. Government authorities must established effective and efficient responses to reports of cyber bullying.

4. Advocate for government support of research to develop and test programs to prevent or reduce cyber bullying.

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PRE – SERVICE TEACHERS' EXTENT OF MOTIVATIONS IN TEACHING CAREER SELECTION: BASIS FOR A CAREER ROAD – MAPPING PROGRAM

Benjamin G. Haboc

INTRODUCTION

What makes an effective and efficient teacher? Teaching is one of the most complicated jobs nowadays. It demands broad knowledge of subject matter, curriculum, and standards; enthusiasm, a caring attitude, and a love of learning; knowledge of discipline and classroom management techniques; and a desire to make a difference in the lives of a young mind. With all these qualities required, it's no wonder that it's hard to find great teachers. And these qualities and characteristics have a great impact to every learner.

Every child has at one time or another ''played school.'' By the time they enter tertiary education, most students have closely observed and examined teachers and their practices for at least 12 or 13 years stay in basic education. These activities leave an indelible imprint on the minds and hearts of most learners as they develop folk theories about what it takes to be a teacher (Doolittle, Dodds, & Placek, 1993). It has been widely known that pre-service teachers' firmly believed on the teaching profession long before exposure to a classroom setting and that they persist throughout their teacher preparation and into their early years of teaching. Consequently, examining pre-service teachers' perceptions and beliefs about teaching is important for evaluating how teacher preparation programs can be designed in order to best align prospective teachers' strongly held beliefs with the pedagogical practices that they will need to learn for their subsequent teaching careers. To this end, this study seeks to examine the perceptions of thirty (30) freshmen pre-service teachers with respect to their demographic profile, what they felt about teaching and their perception about teaching as profession.

As education is a key to success in life, quality of education can determine quality of life. Improving quality of Philippine education is imperative indeed. And the pre – service teacher learn to continue the legacy started from the past and continue then and on if and only if they are going to live the profession according to purpose. This study aimed to determine the Freshmen Pre – service Teachers' Motivation in Teaching Career Selection as a basis for a Career Road Mapping Program in the college of education. Specifically, the study sought to answer the following sub - problems:

1. What are the profile of the respondents in terms of: 1.1 gender 1.2 age 1.3 civil status 1.4 no. of times took the ECAT 1.5 teaching as a career choice and 1.6 department / major

2. What is the extent of motivation affecting teaching career selection of a freshmen pre – service teachers in terms of:

    2.1 beliefs about teaching

    2.2 perception about the career and

    2.3 career choice satisfaction.

3. Is there a significant relationship between the extent of motivation affecting the teaching career selection of a freshmen pre – service teacher and its demographic profile?

4. Based from the result, what Career Road Mapping Program for freshmen pre – service teachers be developed?

This study hypothesized that there is no significant relationship between the profile of the respondents and the extent of factors affecting the career selection of a freshmen pre – service teacher. Started and ended this school year2018 – 2019. This study is limited to the honest responses of the thirty (30) science major pre – service teachers of the college of education in Eulogio "Amang" Rodriguez Institute of Science and Technology in Nagtahan, Sampaloc, Manila. It utilized the purposive and convenient sampling method. The paradigm of the study as illustrated below

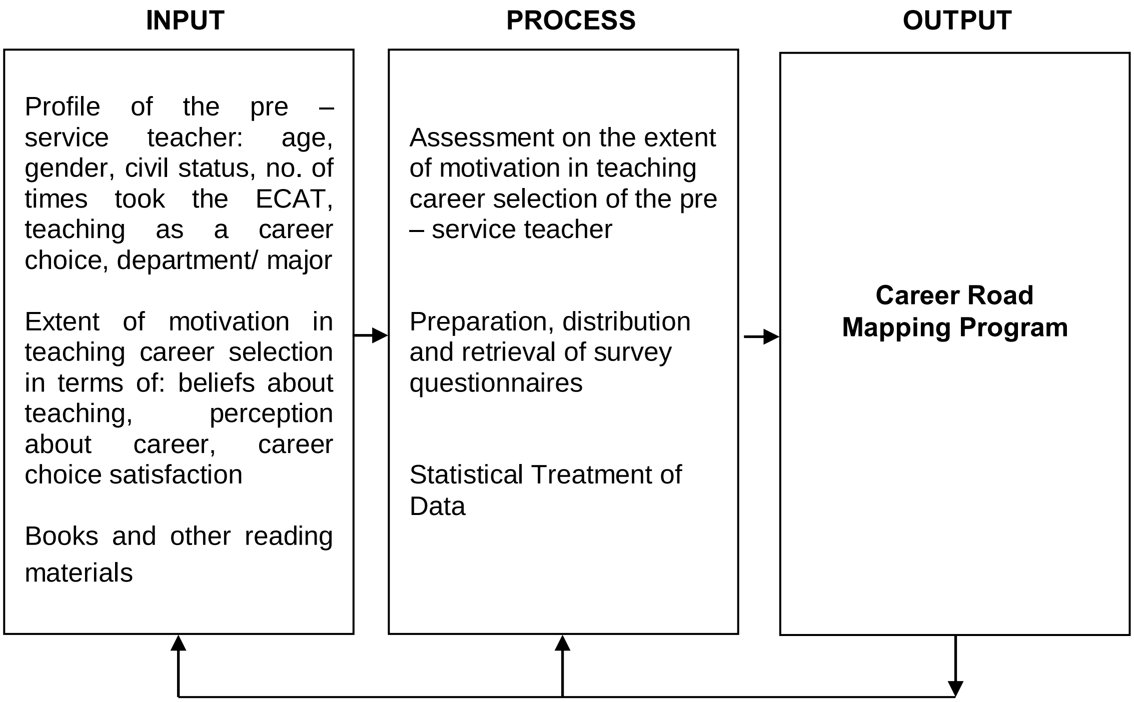

Figure 1. Research Paradigm

CONCEPTUAL FRAMEWORK

The INPUT, started from getting the profile of the pre – service teacher, the conducting a survey on the extent of motivation in teaching career selection about beliefs on teaching, perception about the career and career choice satisfaction by the freshmen students in the college of education as a respondents of the study.

The PROCESS, included the research instrument by assessing on the perceptions and beliefs by the freshmen pre – service teachers regarding the profession; preparation, distribution and retrieval of survey questionnaires and statistical treatment of data analysis and data interpretation.

The OUTPUT, the results in the study: A Road – Mapping Program for Freshmen Pre – Service Teachers.

This study proved to be beneficial to the following stakeholders:

College of Education – the result of the study may serve the college enhance the teaching and learning as students of the college pursuit the noblest profession.

Freshmen Pre – service Teachers – the findings may help to strengthen their beliefs, concepts and attitudes towards teaching and learning.

Department Coordinators – the output of the study may facilitate supervisors enhance the teaching - learning process in their major field of specialization.

Administrators – the administrator may be able to provide support on faculty development programs terms of trainings and seminars on teaching and learning.

Guidance Counselors – the findings may help to strengthen their testing and counseling to better roadmap the incoming student of the institution specifically future teachers.

Future Researchers – the future researchers may gain insights from the research study and conduct further research on the quality and characteristics of incoming college students.

REVIEW OF RELATED LITERATURE AND STUDIES

Aufeanger & Yildirim (2003) Teacher training institutions are in adaptation process to meet current standards of information and communication society. They reorganize their curriculum and as well as their goals with respect to different aspects, which is the way of technology infusion into schools, the characteristic of curriculum, the teacher training system, and socio-political philosophy of the role of schools and teachers. At this point, goals of teacher training institutions have critical roles. In the literature, there are a number of goals recommended for teacher training institutions for information and communication society.

Sinclair (2008) stated the research that since the early 1990s, research on motivations for teaching has been underpinned by different theoretical bases and used a variety of research methods, such as interviews, questionnaires and case studies. Similar but not identical motivations synthesized from these studies include a “love” of or desire to work with and be beneficial for students, altruism or aiming to make a difference in communities and society, and the influence of others including family members, past teachers or members of the wider community. Perceived benefits, and/or convenience of teaching such as work schedules, work hours, vacations, career security and salary, a “calling” to teach and a love of teaching or particular subject, or a desire to impart knowledge are also among the major motivations to choose teaching as a profession. The nature of teaching work, the perceived ease of entry into initial teacher education courses, and the status teaching provides are also identified in the previous research as reasons to choose this career. Williams and Forgasz’s (2009) findings from a study of motivations of 375 career change students support the research that people chose teaching as a career primarily for intrinsic or altruistic reasons rather than for extrinsic rewards such as pay, working conditions, career opportunities or status. Manuel and Hughes (2006) reported the quest for personal fulfillment, the desire to work with young people to make a difference in their lives, and the opportunity to continue meaningful engagement with the subject of their choice as fundamental reasons for people to choose teaching at the end of research with 79 secondary teacher education students in Australia. Anthony and Ord (2008) report push and pull factors, family experiences, values and task expectancies as the reasons of 68 participants to pursue teaching in New Zealand. Bruinsma and Jansen (2010) extend the concept of motivation to become a teacher by making a distinction between adaptive and maladaptive motives based on research into achievement motivation and the studies by Sinclair, Dowson and McInerney (2006) and Martin (2006). Minor, Onwuegbuzie & Witcher (2000) With respect to professional competence, good teachers generally, are thought to have sufficient knowledge of the content area(s) in which they teach. Good teachers are further able to clearly impart their knowledge to their students. Another important quality of good teachers is their ability to use effective classroom management techniques. Skamp (1995) identified in his study an additional quality such as encouraging students to think for them, incorporating experiments

Doolittle et al., (1993), Hollingsworth (1989), Nespor (1987), Investigating pre-service teachers' perception about the specific qualities of good teachers is critical to determining the extent to which teacher preparation programs can affect their subsequent classroom practice. Weinstein (1990) One might reasonably expect that pre-service teachers will perceive ''good'' or effective teachers as vehicles for producing positive student outcomes; however, this is not the case. In fact, some research indicates that ''meeting students' needs'' is generally rated low on scales that list characteristics of good teachers, Book et al., (1983) particularly for candidates enrolled in elementary education programs.

MATERIALS AND METHODS

This chapter presents the research design, the research locale, the sample and sampling technique, the instruments, the data gathering procedure, and the statistical treatment of the data.

This study used the descriptive method which employed the quantitative research that involves data collection, analysis and interpretation of data and conclusion. It is mainly statistical analysis needed to solve the research problems. It was designed to identify the pre – service teachers' profile based on their gender, age civil status, number of times took the ECAT, teaching as a career choice and the department the respondents belong. The factors affecting the respondent's career selection namely: Motivational beliefs about teaching, Perception about the career and Career choice satisfaction. The study was conducted in EARIST College of Education. This study utilized the convenient and purposive sampling technique. Convenient sampling because the respondent were the students of the one who conducted the study. Purposive because it was selected based on the characteristics of the respondents comprises solely taking up education. There were thirty (30) pre – service teachers respondents in the study.

RESULTS AND DISCUSSIONS

1. Demographic Profile of the Respondents (Gender, Age, Civil Status, No. of times took the ECAT, Teaching as Career Choice, Pre – service Department)

Table 1 As to Gender

Gender	F	%
Male	6	20.0
Female	24	80.0
Total	**30**	**100.0**

It shows the distribution of the pre – service teachers as to gender. It shows that 6 or 20.0% of the respondents are males and the other 24 or 80.0% are female.

Table 2 as to Age

Age	Male		Female		
	f	%	F	%	Total
< 20	2	33.33	12	50.00	14
21 – 25	3	50.00	10	41.67	13
> 26	1	16.67	2	8.33	3
Total	**6**		**24**		**30**

The table shows the distribution of the respondents as to age. The respondents vary in age ranging from 19 years old to more the 26 years old. Based from the data, the largest number of the pre – service teacher-respondent age ranged less than 20 years old or 46.67%, followed by 21 – 25 years old with a frequency of 13 or 43.33% and least is the 26 years old above with a frequency of 3 or 10.0%.

Table 3 as to Civil Status

Civil Status	Male		Female		
	f	%	f	%	Total
Single	6	100.0	23	95.83	29
Married	0	0.0	1	4.17	1
Total	**6**		**24**		**30**

The table shows the distribution of the respondents as to civil status. Majority of respondents is single having a frequency of 29 or 96.67% and there is only one (1) or 3.33% married respondents.

Table 4 as to No. of Times took the ECAT

No. of times	Male		Female		
	f	%	F	%	Total
Once (1X)	6	100.0	23	95.83	29
Twice (2X)	0	0.0	1	4.17	1
Total	**6**		**24**		**30**

As the data shows on the distribution of the respondents as to no. of times took the ECAT. There are 29 or 96.67% took at once the ECAT and there is 1 or 3.33% respondents who took twice the ECAT.

Table 5 As to Teaching as a Career Choice

As a Choice	Male		Female		
	f	%	F	%	Total
1st choice	5	83.33	15	62.50	20
2nd choice	0	0.0	4	16.67	4
3rd choice	1	16.67	3	12.50	4
4th choice	0	0.0	2	8.33	2
Total	**6**		**24**		**30**

The table shows the distribution of the respondents as to Teaching Career Choice. The respondents who deal teaching as 1st choice have a frequency of 20 or 66.67, followed by 2nd

choice and 3rd choice with have the same frequency of 4 or 13.33% and lastly the 4th choice onward which have a frequency of 2 or 6.67%.

Table 6 As to Department/ Major

Department	Male		Female		
	F	%	F	%	Total
Science	2	33.33	4	16.67	6
Math	1	16.67	4	16.67	5
Filipino	0	0.0	5	20.83	5
TLE	2	33.33	8	33.33	10
SNED	1	16.67	3	12.50	4
Total	**6**		**24**		**30**

The table shows the distribution of the respondents as to department. The respondents belong to science have a frequency of 6 or 20.0%, then math and Filipino department with the same frequency of 5 or 16.67, respondents from TLE have a frequency of 10 or 33.33% and lastly the respondents from SNED department have a frequency of 4 or 13.33%.

2. What is the extent of motivation affecting the career selection of a freshmen pre – service teachers in terms of: 2.1 Beliefs about teaching; 2.2 Perception about the career; and 2.3 Career choice satisfaction

Table 7 As to Beliefs about teaching

Item (B)	N	Mean	Std. Deviation
6	30	3.83	.379
20	30	3.80	.484
13	30	3.80	.407
31	30	3.70	.466
25	30	3.67	.547
19	30	3.67	.479
18	30	3.67	.547
16	30	3.63	.556
9	30	3.63	.718
37	30	3.57	.679
33	30	3.53	.571
17	30	3.53	.507
30	30	3.47	.571
23	30	3.47	.507
22	30	3.47	.629
21	30	3.47	.681
32	30	3.43	.679
29	30	3.43	.817
12	30	3.43	.626
1	30	3.43	.679
34	30	3.40	.563
11	30	3.40	.675
26	30	3.40	.563
5	30	3.40	.724
7	30	3.33	.711
27	30	3.33	.661

24	30	3.33	.606
36	30	3.30	.794
38	30	3.27	.868
2	30	3.27	.691
35	30	3.23	.898
15	30	3.20	.664
3	30	3.13	.776
8	30	3.03	.669
14	30	3.00	.910
4	30	2.83	.788
28	30	2.77	1.085
10	30	2.13	1.104

The highest mean score is in item no.6 indicated that pre-service teachers have a concrete belief on the role of teachers in a society. However, the lowest mean score is in item no.10 indicated that the pre – service teacher still do not have a concrete idea on what career he/she wanted.

Table 8 As to Perception about the teaching career

Item (C)	N	Mean	Std. Deviation
10	30	3.83	.592
4	30	3.83	.379
5	30	3.80	.407
12	30	3.73	.640
9	30	3.67	.661
2	30	3.67	.547
13	30	3.67	.661
8	30	3.67	.479
11	30	3.60	.621
6	30	3.53	.629
7	30	3.40	.814
3	30	3.20	.664
1	30	3.10	.845

The highest mean score is item no. 10 indicated that pre-service teachers were aware of the status of teaching career that it is well respected. However, the lowest mean score is item no. 1 indicated that pre-service teachers thinking whether it is a well – paid profession.

Table 9 As to Career choice satisfaction

Item (D)	N	Mean	Std. Deviation
3	30	3.53	.507
1	30	3.43	.504
4	30	3.40	.563
2	30	2.87	1.008

The highest mean score is item no. 3 indicated that pre-service teachers were happy in their decision to choose teaching as a career. However, the lowest mean score is item no. 1 indicated that pre-service teachers thinking still of satisfaction about their choice.

3. Is there a significant relationship between the factors affecting the teaching career selection of a freshmen pre – service teacher and the profile of the respondents?

Table 10 Relationship of the factors affecting the teaching career selection as to the Chosen Department/ Major of the Pre – Service Teachers

Variable	Chi – square value	df	p - value	Decision
A. Beliefs about teaching	85.00	80	0.330	Not Significant
B. Perception about career	56.872	52	0.321	Not Significant
C. Career satisfaction	20.268	24	0.681	Not Significant

The relationship between the factors affecting the teaching career selection as to the department where the pre – service teachers belong by the respondents. In terms of beliefs about teaching it obtained a chi – square value of 85.00 with the df value of 80 and with its p value of 0.330. However, with regards to perception about career it obtained a chi – square value of 56.872 with the df value of 52 and its p value is 0.321. Lastly, the respondent's career satisfaction obtained a chi – square value of 20.268, with a df value of 24 and its p value of 0.681. It was tested at 0.05 level of significant. Thus, it resulted at five percent level of significance, accepting the null hypothesis that there is no significant relationship between the factors affecting the teaching career selection and the chosen department of the respondents.

Table 11 Relationship of the factors affecting teaching career selection as to Career Choice

Variable	Chi – square value	df	p - value	Decision
A. Beliefs about teaching	68.250	60	0.217	Not Significant
B. Perception about career	38.700	39	0.483	Not Significant
C. Career satisfaction	27.679	18	0.067	Not Significant

The relationship between the factors affecting the teaching career selection as to the career choice by the respondents. In terms of beliefs about teaching it obtained a chi – square value of 68.250 with the df value of 60 and with its p value of 0.217. However, with regards to perception about career it obtained a chi – square value of 38.700 with the df value of 39 and its p value is 0.483. Lastly, the respondent career satisfaction obtained a chi – square value of 27.679, with a df value of 18 and its p value of 0.067. It was tested at 0.05 level of significant. Thus, it resulted at five percent level of significance, accepting the null hypothesis that there is no significant relationship between the factors affecting the teaching career selection and the career choice of the respondents.

4. Based from the result, what career road mapping program may be developed?

After from the assessment done by the researcher based on the data driven from the study, the following CAREER ROAD MAPPING PROGRAM DESIGN

Title: Pre – Service Career Road Mapping Program
Theme: Rediscovering Career Options as well as Passion
Participants: College of Education 1st Year Students
Date: June 30, 2019
Venue: College of Education Accreditation Room

Rationale:

There are question somehow in life that we need an answer. Like the question “how can you tell if your job is still meaningful to you?” Well, we need to rediscover what is meaningful to us in the first place. We know, first thing we are thinking is here we go again, another question about trying to find the meaning of life. Well, it is not about the meaning of life, it is about what is meaningful in OUR LIFE. What gets us smiling, excited and happy? What calms us and provides us energy to move along. We would be surprised if we tried to figure it out and then try to build the strength to really follow it.

Numerous challenges exist for a freshmen college of education students, how to decide on their career for life. Somehow their just passive on deciding to become teacher, and teaching is not in their heart. This Road mapping program will redirect and give a concrete ideas and definition to freshmen whom taking up education as their chosen career.

Objectives:

The seminar-workshop aims to:

1. develop an appreciation on the importance of teaching career to freshmen pre – service teachers;

2. orient the pre – service teacher participants on the career they have been to and its working demand;

3. equip them with understanding and passion help develop their innate potential in teaching;

4. understand the important role played by a teacher in the society in order for them develop positive qualities and characteristics necessary for a future teacher.

Methodology: Training/ Seminar-Workshop

Committees:

Program & Certificates:	BSEd I Science	Stage Prep:	BSEd TLE 1
Invitation and Reception:	BSEd I Filipino	Documentation:	All freshmen
Registration:	BSEd I Math	Evaluation:	BEED I SNED
Foods:	BSEd I TLE		

Programme:

SEMINAR-WORKSHOP ON CAREER ROAD MAPPING PROGRAM
Theme: Rediscovering Career Options as well as Passion
June 30, 2019
College of Education Accreditation Room

I. Opening Program

Prayer:	QUIMING ALYANNA/ BSEd I Science
National Anthem	LESLIE SARTE/ BSEd I Science
Opening Remarks	Guidance Officer
Inspirational Message	DR. BABYLYN CONTI/ Dean

Intermission Number	Selected Freshmen students STUD
Statement of Purpose	MICHAEL FATALLA/ BSEd I Filipino
Introduction of the Speaker	RICO ALEGRE/ BEEd I SNED

II. Seminar Proper
KNOWING THYSELF
Dr. VIRGILIO VERGEL
COMMON PROBLEMS IN CHOOSING CAREER IN COLLEGE
Dr. GEORGIA MIRAFLOR
WHAT CAREER AHEAD ON YOU AFTER PRE - SERVICE TEACHER LIFE
Dr. RHODA MENGUITA

III. Closing Ceremonies and Giving of Certificates
Distribution of Certificates
Closing Remarks NELMAR RETARDO/ BSED I Science
Masters of Ceremonies: Heidi Mendoza & Axl Ross
Registration Fee: Php 50.00 (inclusive of snack, certificate, program and token for speakers)
Prepared by:

CONCLUSIONS

Based on the findings of the study, the following conclusions were drawn.

1. The demographic profile of the teacher respondents in terms of:

   a. Gender. Majority of the respondents are females than males.

   b. Age. The respondents vary in age ranging from less than 20 years old to 26 years above.

   c. Civil Status. Majority of the respondents are single and there is only one married.

   d. No. of Times took the ECAT. Majority of the respondents took the ECAT once and there is one respondent who took it twice.

   e. Teaching Career as a Choice. Two thirds of the total population, teaching career is their first choice and one third of it teaching is not their primary choice.

   f. Department/ Major. There are different department in the college of education, one third of total population belong to TLE department and the other department have almost the same frequency.

2. Extent of motivation affecting the career selection of a freshmen pre – service teachers in terms of:

   2.1 Beliefs about teaching.

   Based from the data on the extent of motivation affecting career selection of freshmen pre – service teachers on their beliefs about teaching they have a great deal on it. They have full conviction on the said career.

2.2 Perception about the career

The perception of the pre – service teacher about teaching career they deal about it greatly. They still have full conviction on their perception on the status of teaching career.

2.3 Career choice satisfaction

On the pre – service teaching career choice satisfaction they are quite satisfied. This indicated that teaching was not totally the choice. However, the pre – service teacher is quite a bit satisfied on their decision.

3. There is no significant relationship between the extent of motivation affecting the career selection of a freshmen pre – service teachers as to chosen major field and teaching as a career choice.

4. A Career Road Mapping Program was proposed by the researcher to provide a concrete idea to the pre – service teachers about the career. To guide the students who seek affirmation on their decision about teaching profession. And lastly, provide future teachers with understanding on the career leading to satisfaction as quickly as possible.

RECOMMENDATIONS

The following are the recommendations:

1. Should revisit their career assessment program especially for the teacher education program.

2. Should support the guidance and testing center in student's career alignment.

3. Should let the class adviser have access to revisit the student's guidance and academic records.

4. The college must provide an interview to college entrants that will dig out information regarding on their personality whether they have inclination especially to teaching.

5. Employ seminar program orientation to the freshmen pre – service teachers as early of the school year to lead by the guidance and the college administrator.

6. Prepare on-going career road mapping plan.

7. Replicate the study using different variables and in different setting.

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ORGANIZATIONAL POLITICS AND PSYCHOLOGICAL CONTRACTS AMONG ADMINISTRATIVE PERSONNEL: TOWARDS THE DEVELOPMENT OF A STRATEGIC ADMINISTRATIVE PERSONNEL MANAGEMENT PLAN

Myrtle P. Macam

INTRODUCTION

An organization is a system of competitions and collaborations among employees in pursuit of their tasks and goals. In such cases, they are often pitted against each other for limited resources, status, and career advancement. Along with the diversity of individuals and groups, the hierarchy more or less warrants competitive struggles on which politics thrives. Thus, political behavior is a natural response to the tensions between individuals and groups. Sometimes, these conflicts are quite explicit, while at other times, they lie hidden beneath daily events.

Power and politics always play role in any organization affecting different facets of the organizational operations such as how decisions are made, and how employees interact with one another. It could be argued that politics are used primarily to achieve power and control directly or indirectly. Each organization has different forms of politics that involves power and control among workers. Consequently, although most people know that organizational politics is common, they avoid saying so when it concerns one's own behavior. It is more common to talk about it when an employee is complaining or fails to achieve something he desires or expects. In many organizations, it is considered a distasteful subject, which makes it difficult for individuals to deal with this crucially relevant aspect of organizational reality. But, it would be a mistake to pretend that politics does not exist for it is a natural result of the fact that people think differently and want to act differently.

The Psychological Contract has been an increasing interest for human resource departments as it can be used to measure factors influencing workplace behavior and performance. It is a concept that describes the perception of the business relationships between the employer and employee. It also pertains to the mutual expectations people have of one another, and how these affect and change interactions within the organization. It is therefore important that managers are at least aware of the existence of these contracts and recognize that employees have legitimate expectations relating to how they are treated at work. Violation of such has been found to lead to serious consequences.

Employees usually think that their expectations are generally accepted and agreed upon. And when expectations are not fulfilled, this leads to hidden assumptions on both sides and results in the breach of the hidden contract. This could result to employee dissatisfaction, demotivation, withdrawal, and underperformance, which might lead the employee to think about leaving the organization. On the other hand, when employees feel that it has been fulfilled and that the employer is 'sticking to their part of the deal,' the results would be increased performance, job satisfaction, and loyalty towards the organization. Hence, it is vital that managers understand, manage and work to fulfill and sustain psychological contracts for adverse consequences to be avoided. It may help the employees and employers get rid of a complicated employment relationship and motivate them to implement their work consciously.

The researcher investigated the perspectives of administrative employees on organizational politics and their psychological contracts in a public academic institution that offers tertiary education to youth of low income families subsidized by both the national and local government of Manila, the Eulogio Amang Rodriguez Institute of Science and Technology. These two issues now dwell in industrial and organizational setting, more so in a government institution. Hence, the researcher deemed it necessary to conduct this study to contribute to her current organization through this research and provide pertinent inputs to human resource management. It would not only raise awareness on these two relevant topics but to somehow make the key people in her organization realize the current condition and practices at work that are connected with politics and the psychological contract of the employees.

MATERIALS AND METHODS

This part presents the methods and procedures utilized by the researcher. It concentrates on the method of research, sampling design, the description of the respondents, instruments, manner of gathering and treatment of data.

RESEARCH METHOD AND DESIGN

The researcher used the descriptive method specifically the survey design to determine the assessment of the respondents on the Organizational Politics and Psychological Contract in EARIST Manila. The descriptive method of research is a fact finding form of research with adequate and accurate interpretation of the findings, which involves the recording, descripting, analyzing and presentation of data.

POPULATION AND SAMPLE SIZE

The population frame of this study is the ninety three administrative personnel. This research used purposive sampling. It only targeted the administrative personnel of EARIST, Manila. It is a selective non-probability sampling technique selected based on the characteristics of the population and purpose of the study. The distribution of respondents is shown in Table 1. The sample size taken is 64 respondents or 68.81%.

RESEARCH INSTRUMENT USED

The researchers' instruments used in the study are standardized questionnaires namely Perception of Organization Politics Scale (POPS) and .Psychological Contract Scale and Psychological Contract Inventory; and an interview with the respondents.

1. The questionnaire consists of three parts. Part 1 of the questionnaire deals with the employee's employment profile. It includes length of service, level of position and employment status.

Part 2 of the questionnaire covers the questions to determine the organizational politics using the Perception of Organizational Politics Scale (POPS) by Kacmar & Carlson (1997). The three sub dimensions of organizational politics are: *General political behavior*, which includes the behaviors of individuals who act in self-serving manner to obtain valued outcomes; *Go along to get ahead*, which consist of a lack of action by individuals in order to secure valued outcomes. This is a culture of silence and complacency, and; *Pay and promotion policies*, which involve the organizations' political behavior in which the policies are manipulated and favors are given to those who are not on merit. Public sector employees are receiving a standardized salary, thus, “pay” from the sub variable “pay and promotion policies” was deleted.

Part 3 of the questionnaire is from Psychological Contract Scale (PCS) by Millward and Hopkins (1998). It measures strength of relational contract, and transactional contract. While the employer’s commitment/obligation to employee and employee’s commitment/obligation to employer was adopted from Psychological Contract Inventory (PCI) by Rousseau (1995). The psychological contract has three subscales, these are *transactional and Relational*, which is of limited duration with well specified performance terms and which are open ended memberships but with incomplete performance requirements attached to the membership and the Employee and *Employee Commitment/Obligations to Employer* and *Employee Commitment/Obligations to Employer*, which is the dimensions of specificity of obligations and norm of reciprocity that pertains to employee perceptions of the existence of mutual obligations to the employer. All these instruments were taken from public domains in the internet.

The previously mentioned instruments made use of Likert Scales shown in Tables 2, 3 and 4. These Likert scales show the corresponding range, descriptive and narrative interpretation that elicited meaningful results and also aided the researcher to interpret the findings.

Table 2

Likert Scale for Organizational Politics

Scale	Range	Descriptive Interpretation	Narrative Interpretation
5	4.5 – 5.0	Strongly Agree	This means that the condition is highly existing and manifesting in the organization
4	3.5 – 4.49	Agree	This means that the condition is existing and manifesting in the organization
3	2.5 – 3.49	Moderately Agree	This means that the condition is somewhat existing and manifesting in the organization
2	1.5 – 2.49	Disagree	This means that the condition is not existing nor manifesting in the organization
1	1.0 - 1.49	Strongly Disagree	This means that the condition have never existed nor manifested in the organization

Table 3

Likert Scale for Relational/Transactional Contract

Scale	Range	Descriptive Interpretation	Narrative Interpretation
5	4.5 – 5.0	Strongly Agree	This means that the condition is very much expected
4	3.5 – 4.49	Agree	This means that the indicator is expected
3	2.5 – 3.49	Moderately Agree	This means that the indicator is somewhat expected
2	1.5 – 2.49	Disagree	This means that the indicator is not commonly expected
1	1.0 - 1.49	Strongly Disagree	This means that the indicator is never expected

Table 4

Likert Scale for Employer Commitment/Obligation to Employee and Employee Commitment/Obligation to Employer

Scale	Range	Descriptive Interpretation	Narrative Interpretation
5	4.5 – 5.0	Great Extent	This means that the indicator is highly expected
4	3.5 – 4.49	Extent	This means that the indicator is usually expected
3	2.5 – 3.49	Sometimes	This means that the indicator is sometimes expected
2	1.5 – 2.49	Somewhat	This means that the indicator is seldom expected
1	1.0 - 1.49	Not at All	This means that the indicator is not expected

The second instrument is interview with the respondents based from the significant findings of the study. An interview guide was used to get supplemental data to support the results of the questionnaire and to generate more meaningful interpretation of the findings.

STATISTICAL TREATMENT OF DATA

The data gathered were tallied, tabulated manually, and statistically treated with the aid of computer through Microsoft Excel and SPSS to determine the precise interpretation of the results.

The following different statistical tools were used to analyze the data:

1. Frequency, Percentage and Ranking will be used in the study to quantify the profile of the respondents.

2. Weighted mean was used to measure the responses on the assessment of organizational politics and psychological contract.

3. To find out the significant differences with the assessment of the respondents on the organizational politics and psychological contract when they are grouped according to their employment profile, F-test was used.

4. To find out the significant relationship between organizational politics and the psychological contract, Pearson Product was used.

RESULTS AND DISCUSSION

This focuses on the analysis, interpretation and presentation of data. The data obtained from the survey questionnaire given by the respondents are the source of information for this research.

FINDINGS OF THE STUDY

1. Employment Profile of the Respondents

Findings of the study show that the employment profile of the respondents are: as to Length of Service, 34 or 53.13% of the respondents have been in the institution for 3-10 years, 15 or 23.44% for 21-30 years, 9 or 14.06% for 31 years-above and 6 or 9.38% for 11-20 years. As to Level of Position, 51 or 79.69% hold Rank and File positions, 8 or 12.50% are in Supervisory positions, and 5 or 7.81% are holding Managerial positions. In terms of Employment Status, 44 or 68.75% are tenured while the remaining 20 or 31.25% are non-tenured.

2. Assessments on the Organizational Politics

On the assessments of Organizational Politics, as to General Political Behavior, all statements resulted to the grand mean of 3.20 with a descriptive interpretation of Moderately Agree. For Go Along to Get Ahead, all statements resulted to a grand mean of 3.11 and in terms of Promotion Policies, all statements resulted to a grand mean of 3.00. Generally, the assessments of Organizational Politics got descriptive interpretation of Moderately Agree.

3. Assessments on Psychological Contract

On the Psychological Contract, in terms of Relational/Transactional Contract, the respondents' assessment garnered a grand mean of 3.63 with a descriptive interpretation of Agree. As to Employer Commitment/Obligation to Employee, the respondents' assessments got a grand mean of 3.65 while Employee Commitment/Obligation to Employer got a grand mean of 4.05. Both have a descriptive interpretation of Extent.

4. Difference on the Assessments of Organizational Politics When Grouped According to Employment Profile

On the difference on the assessments of Organizational Politics when grouped according to employment profile, all p values are greater than the 0.05 level of significance, thus, the null hypotheses that there is no significant difference on the organizational politics are accepted.

5. Difference on the Assessments of Organizational Politics When Grouped According to Employment Profile

On the difference on the assessments of Psychological Contract when grouped according to employment profile, all p values are greater than the 0.05 level of significance except for the psychological contract in terms of Employer Commitment/Obligation to Employee when they are grouped according to Employment Status.

6. Relationship Between Organizational Politics and Psychological Contract

On the relationship between Organizational Politics and Relational/Transactional Contract, most p values are greater than the 0.05 level of significance, hence, there is no significant relationship between Organizational Politics and Psychological Contract except for Get Along to Get Ahead and Relational/transactional Contract, and Promotion Policies and Employer Commitment/Obligation to Employee.

CONCLUSIONS

Based on the findings of the study, the following conclusions were drawn:

1. Majority of the administrative personnel have only been in the institution for 3-10 years, are in rank and file level of position, and tenured or regular employees.

2. The administrative personnel assessed Organizational Politics with an interpretation of Moderately Agree. This means that organizational political conditions such as performing behaviors for self-interests, being silent to keep valued outcomes, and policies that shape political behaviors related to rewards and outcomes are assessed as somewhat existing and manifesting in the organization.

3. The administrative personnel's overall assessment of their Psychological Contract as to Relational/Transactional is Agree which means that they expect the limited involvement and the long term employment arrangements built upon trust and loyalty of the employees. For the commitment and obligation of both the employer and employee to each other are assessed as Extent which means that they mutually expect each other to perform their responsibilities and to have attachment and loyalty in the organization.

4. Mostly, there are no significant differences on the assessments of both the Organizational Politics and Psychological Contract when the administrative personnel are grouped according to their employment profile except for their view on the Employer Commitment/Obligation to Employee which varies according to Employment Status. This means that rank and file, supervisory and managerial employees differ with how they assess the expected responsibilities, psychological attachment and resulting loyalty of the employers to them.

5. The null hypotheses that there is no significant relationship between Get Along to Get Ahead and Relational/transactional Contract, and Promotion Policies and Employer Commitment/Obligation to Employee are rejected. This means that being silent to keep vested interests and valued outcomes are in connection with the short term involvement and long term employment arrangements of the employees based upon trust and loyalty. Also, they assessed

that organizational policies pertaining to rewards and outcomes have something to do with their expectations on the attachment and loyalty of the employer.

RECOMMENDATIONS

In view of the foregoing summary of findings and conclusions, the following recommendations are hereby given:

1. The administrators of the administrative personnel may consider having a dialogue with their subordinates or a feedback system within their department in order to provide an avenue for them to express concerns that would affect how they view the politics inside the organization and also their psychological contract..

2. The Human Resource Department may conduct an orientation or re-orientation on the promotional policies of the organization so that the employees are properly guided on its processes and guidelines.

3. The Administrators may use this study to better understand the perceptions, motivations and concerns of the employees pertaining to issues concerning their psychological contract and how they view the organizational practices.

4. Future researchers may consider conducting the topics featured in this study in a different type of setting such as private academic institution or private company with different types of respondents.

5. The administrators may consider the proposed strategic administrative personnel management plan suggested by the researcher based on the findings of the study.

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PUBLIC PERCEPTION ON THE IMPLEMENTATION OF REPUBLIC ACT NO. 11235 OR THE MOTORCYCLE CRIME PREVENTION ACT: AN ASSESSMENT

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Diana P. Dela Cruz

INTRODUCTION

Police power is one of the inherent powers of the State to make, ordain, or establish all manner of wholesome of reasonable laws for the good and welfare of the State and its people.[1] Republic Act No. 11235 or the "Motorcycle Crime Prevention Act" is an act preventing and penalizing the use of motorcycles in the commission of crimes by requiring bigger, readable and color-coded number plates and identification marks, and for other purposes. It seeks to protect the general public committed by those "riding in tandem," using motorcycles to perpetrate crime.

Motorcycles have become "crime machines." Reports how that ordinary people, media personnel, politicians, and even policemen have been killed by persons on board a motorcycle and "riding-in-tandem" to enable their swift gate away. In 2013, Motorcycle riders in Metro Manila committed more than 3,000 crimes.[2] In 2018, Philippine National Police (PNP) records showed that of the total of 28,409 motorcycle riding crimes or incidents reported from 2010 to 2017, 13,062 or 46 percent of which were shooting incidents. And out of over 4,000 motorcycle riding crimes or incidents in 2016, only eight cases (0.18 percent) were solved. Based on records from the PNP-Highway Patrol Group, there were about 150 motorcycles stolen every week in Metro Manila alone or an average of 21 per day in 2017. In different parts of the country, there were 7,517 vehicles stolen, 6,956 were motorcycles.[3]

Signed by President Rodrigo Duterte on March 8, the new law mandates that motorcycles must have plate numbers at the front and rear portions that are large enough to be read clearly from a distance of 15 meters. These plates will also be color coded. The law also requires the LTO to maintain a registry of motorcycles in a database to facilitate information retrieval for official investigation and law enforcement purposes. It will also penalize motorcycle drivers not using the readable plates with prison *correccional* (imprisonment between six months and one day to six years) as stated in the Revised Penal Code or pay a fine of not less than PHP50,000 but not more than P100,000 or both. Authorities can apprehend motorcycle riders and seize their vehicles if it does not have the proper number plate. The motorcycle owner can only retrieve it after complying with the requirement. It also imposes tough penalties for the use of motorcycles in commission of crimes.[4]

Last March 24, 2019, thousands of motorcycle riders from various motorcycle groups join the Nationwide Unity Ride as they call against new motorcycle law that mandates bigger and double plates for two-wheeled and three-wheeled motor vehicles. According to George Royeca, Angkas head of regulatory affairs, that they are not against the law per se, but they are not in favor of the provision that requires large metal license plates for motorcycle, as this will endanger the lives of motorists, commuters and pedestrians.[5]

The researchers conducted the study with an objective of finding out the public perception on the implementation of Republic Act No. 11235 or the "Motorcycle Crime Prevention Act." This was based on the fact that motorcycle crimes increasing rapidly. Therefore the researchers wish to assess the perception of the people and in order to find out if the new law needs improvement.

MATERIALS AND METHOD

This research utilized the quantitative research methodology. The instruments used to collect data were the observational instruments, which is set of questionnaire containing the criminal liabilities and penalties in the motorcycle crime prevention act. This information will be much helpful on conducting a precise quantitative raw data analyzed according to the feed backs gathered from respondents.

The selected respondents are random people from the City of Manila, Quezon City, and Marikina City in the National Capital Region. Respondents were those who were motorcycle riders, motorist's driver, and commuters.

The following instruments in gathering data used in this research were weighted mean, frequency and percentage analysis were tabulated, analyzed and interpreted.

RESULTS AND DISCUSSIONS

Sub-problem No. 1. What is your perception to Criminal Liability and Penalty to the Owner?

Table 1 presented the perception of the respondents in the criminal liability and penalty to the owner of motorcycle. Motorist's driver and commuters perceived with an overall weighted mean of 3.38 and 3.50, interpreted as agree. While the motorcycle rider opinion with an overall weighted mean of 2.86 interpreted as disagree.

Table 1

Perception in Criminal Liability and Penalty to the Owner

Criminal Liability and Penalty to the Owner	Motorcycle Rider		Motorists Driver		Commuters		Composite Mean		Rank
	WM	VI	WM	VI	WM	VI	WM	VI	
1. Failure to register within 5 days liable for imprisonment of *arresto mayor* (1 month and 1 day to 6 months) to *prision correccional* (6 months and 1 day to 6 years imprisonment) with a fine of not less than P20,000 but not more than P50,000, or both.	2.86	D	3.32	A	3.44	A	3.21	D	4
2. Failure to report the sale of motorcycle liable for imprisonment of *arresto mayor* (1 month and 1 day to 6 months) to *prision correccional* (6 months and 1 day to 6 years imprisonment).	2.80	D	3.46	A	3.46	A	3.24	D	2
3. Failure to report a lost, damaged, or stolen number of plates shall be punished with a fine of not less than P20,000 but not more than P50,000.	2.90	D	3.38	A	3.36	A	3.21	D	3
4. Failure to report the damaged or stolen motorcycle and motorcycle's number plate shall be penalized with imprisonment of *arresto mayor* (1 month and 1 day to 6 months) to *prision correccional* (6 months and 1 day to 6 years imprisonment).	2.86	D	3.34	A	3.74	A	3.31	D	1
Overall Mean	**2.86**	**D**	**3.38**	**A**	**3.50**	**A**	**3.24**	**D**	

Legend:

Option	Range	Verbal Interpretation	Symbol
5	4.20 – 5.00	Strongly Agree	SA
4	3.40 – 4.19	Agree	A
3	2.60 – 3.39	Disagree	D
2	1.80 – 2.59	Strongly Disagree	SD
1	1.00 – 1.79	Don't Know	DK

As manifested in the table, the respondents' assessed *failure to report the damaged or stolen motorcycle and motorcycle's number plate*, ranked 1 with an overall composited weighted mean of 3.31. *Failure to report the sale of motorcycle* ranked 2 with an overall composite weighted mean of 3.24. Rank 3.5 was both *failure to report a lost, damaged, or stolen number of plate* and *failure to register within five days* with an overall composited weighted mean of 3.21. All of these variables are verbally implication as "disagree" with an overall grand mean of 3.24.

Sub-problem No. 2. What is your perception to Criminal Liability and Penalty of the Driver?

Table 2 depicted the assessment in criminal liability and penalty to the driver. Both motorist's driver and commuters perceived with an overall weighted mean of 3.49 and 3.72, interpreted as agree. Motorcycle rider opinion with an overall weighted mean of 2.88 interpreted as disagree.

Table 2

Perception in Criminal Liability and Penalty of the Driver

Criminal Liability and Penalty to the Driver	Motorcycle Rider		Motorists Driver		Commuters		Composite Mean		Rank
	WM	VI	WM	VI	WM	VI	WM	VI	
1. The driver of a motorcycle without a number plate or readable number plate shall be punished by *prision correccional* (6 months and 1 day to 6 years imprisonment), or a fine of not less than P50,000 but not more than P100,000, or both	2.90	D	3.44	A	3.60	A	3.31	D	6
2. Erasing, tampering, altering, forging, imitating, covering, concealing a number plate or readable number plate, shall be punished by *prison mayor* (6 years and 1 day to 12 years imprisonment)	3.02	D	3.50	A	3.80	A	3.44	A	1
3. A person knowingly sells or buys an erased, tampered, altered, forged or imitated number plate or readable number plate, both such buyer and seller shall be punished by *prision mayor* (6 years and 1 day to 12 years imprisonment)	2.86	D	3.42	A	3.92	A	3.40	A	4
4. The person who sell or buys the number plate proves that he or she has no knowledge that it was erased, tampered, altered, forged or imitated, he or she shall be punished by *arresto mayor* (1 month and 1 day to 6 months imprisonment)	2.80	D	3.42	A	3.54	A	3.25	D	7

5. The use of a stolen number plate or readable number plate in a motorcycle shall be punished by *prision mayor* (6 years and 1 day to 12 years imprisonment), or a fine not less than P50,000 but not more than P100,000, or both at the discretion of the court	2.88	D	3.56	A	3.78	A	3.41	A	3
6. Motorcycle is used in the commission of crime constituting a grave felony, escape from the scene of such crime, regardless of the stage of commission, whether attempted, frustrated, or consummated, the owner, driver, back rider or passenger or who participated in the same shall be punished by *reclusion temporal* (12 years and 1 day to 20 years) to *reclusion perpetua* (20 years and 1 day to 40 years imprisonment)	2.88	D	3.56	A	3.82	A	3.42	A	2
7. Death or serious physical injuries, results from the unlawful use of a motorcycle in the commission of a crime, the shall be imposed penalty of *reclusion perpetua* (20 years and 1 day to 40 years imprisonment)	2.84	D	3.52	A	3.60	A	3.32	D	5
Overall Mean	**2..88**	**D**	**3.49**	**A**	**3.72**	**A**	**3.36**	**D**	

Legend:

Option	Range	Verbal Interpretation	Symbol
5	4.20 – 5.00	Strongly Agree	SA
4	3.40 – 4.19	Agree	A
3	2.60 – 3.39	Disagree	D
2	1.80 – 2.59	Strongly Disagree	SD
1	1.00 – 1.79	Don't Know	DK

As showed in the table, the respondents revealed with the overall composite weighted mean of 3.36 interpreted as disagree. These indicators were ranked as follows; "*Erasing, tampering, altering, forging, imitating, covering, concealing a number plate or readable number plate"* ranked 1 with the highest composite weighted mean of 3.44 interpreted as agree. "*Motorcycle is used in the commission of crime constituting a grave felony, escape from the scene of such crime, regardless of the stage of commission, whether attempted, frustrated, or consummated, the owner, driver, back rider or passenger or who participated in the same"* ranked 2 with an overall composite weighted mean of 3.42 interpreted as agree. Ranked 3, "*the use of a stolen number plate or readable number plate in a motorcycle*" with an overall composite weighted mean of 3.41 interpreted as agree. "*a person knowingly sells or buys an erased, tampered, altered, forged or imitated number plate or readable number plate, both such buyer and seller"* ranked 4 with an overall composite weighted mean of 3.40 interpreted as agree. Ranked 5 "*death or serious physical injuries, results from the unlawful use of a motorcycle in the commission of a crime*" with an overall composite weighted mean of 3.32 interpreted as disagree. Ranked 6 "*the driver of a motorcycle without a number plate or readable number plate*" with an overall composite weighted mean of 3.31 interpreted as disagree. "*The person who sell or buys the number plate proves that he or she has no knowledge that it was erased, tampered, altered, forged or imitated*" was ranked 7 with an overall composite weighted mean of 3.25 interpreted as disagree.

It can be noted from the data that the assessments in criminal liability and penalty to the driver was rated by the respondents with an overall grand mean of 3.36 interpreted as "Disagree."

Sub-problem No. 3. What is your perception to Bigger, Readable and Color-Coded Number Plates?

Table 3 reflected the assessment to bigger, readable and color-coded number plates. Both motorcycle driver and commuters perceived with an overall weighted mean of 2.68 and 3.38, interpreted as disagree. Motorists driver perception with an overall weighted mean of 3.29 interpreted as agree.

Table 3

Perception to Bigger, Readable and Color-Coded Number Plates

Bigger, Readable and Color-Coded Number Plates	Motorcycle Rider		Motorists Driver		Commuters		Composite Mean		Rank
	WM	VI	WM	VI	WM	VI	WM	VI	
1. The number plates shall be readable from the front, the back, and the side of the motorcycle from a distance of at least 15 meters from the motorcycle.	2.72	D	3.32	D	3.40	A	3.15	D	2
2. The number plate size both from the front and back shall be 200x220 mm (7.87x8.66 inches)	2.56	SD	3.40	A	3.32	D	3.09	D	4
3. The size of the letters and numbers were 70x34 mm (2.76x1.33 inches)	2.66	D	3.34	D	3.34	D	3.11	D	3
4. The number plate shall also be color-coded depending on the region where the motorcycle was registered.	3.14	D	3.44	A	3.50	A	3.36	D	1
5. The number plate in the front will be made of metal	2.32	SD	2.94	D	3.36	D	2.87	D	5
Overall Mean	**2.68**	**D**	**3.29**	**A**	**3.38**	**D**	**3.12**	**D**	

Legend:

Option	Range	Verbal Interpretation	Symbol
5	4.20 – 5.00	Strongly Agree	SA
4	3.40 – 4.19	Agree	A
3	2.60 – 3.39	Disagree	D
2	1.80 – 2.59	Strongly Disagree	SD
1	1.00 – 1.79	Don't Know	DK

As gleaned in the table, the respondents assessed all the criteria with the overall grand mean of 3.12 interpreted as disagree. *The number plate in the front will be made of metal* ranked 5 with the lowest overall composite weighted mean of 2.87 interpreted as disagree. While, "*the number plate shall also be color-coded depending on the region where the motorcycle was registered*" with an overall composite weighted mean of 3.36 interpreted as 3.36 and ranked 1. Ranked 2, "*the number plates shall be readable from the front, the back, and the side of the motorcycle from a distance of at least 15 meters from the motorcycle*" with an overall composite weighted mean of 3.15 interpreted as disagree. "*The size of the letters and numbers were 70x34 mm (2.76x1.33 inches)*" were ranked 4 with an overall composite weighted mean of 3.09 interpreted as disagree.

Table 4 presents the summary of the overall grand mean of the respondents' perception on the Implementation of Republic Act No. 11235 or the Motorcycle Crime Prevention Act.

Table 4

Summary of Assessment of the Respondents' Perception on the Implementation of Republic Act No. 11235 or the Motorcycle Crime Prevention Act

Indicators	Motorcycle Rider		Motorists Driver		Commuters		Composite Mean		Rank
	WM	VI	WM	VI	WM	VI	WM	VI	
1. Criminal liability and penalty to the owner	2.86	D	3.38	D	3.50	A	3.24	D	2
2. Criminal liability and penalty to the driver	2.88	D	3.49	A	3.72	A	3.36	D	1
3. Bigger, readable and color-coded number plates	2.68	D	3.29	A	3.38	D	3.12	D	3
Overall Mean	**2.81**	**D**	**3.38**	**D**	**3.54**	**A**	**3.24**	**D**	

As presented in the table, for the three group of respondents, ranked 1 was criminal liability and penalty to the driver with an overall composite weighted mean of 3.36. Next was criminal liability and penalty to the owner with an overall composite weighted mean of 3.24. Followed by bigger, readable and color-coded number plates with an overall composite weighted mean of 3.12. All of these variables are verbally interpreted as "disagree" with an overall grand mean of 3.24.

CONCLUSIONS

Based on the findings of the study, the following concluding statements are drawn:

1. Motorist's driver and commuters perceived the criminal liability and penalty to the owner of the motorcycle with an overall weighted mean of 3.38 and 3.50, interpreted as agree. While the motorcycle rider opinion with an overall weighted mean of 2.86 interpreted as disagree.

2. Apparently, both motorist's driver and commuters perceived the criminal liability and penalty to the driver with an overall weighted mean of 3.49 and 3.72, interpreted as agree. Motorcycle rider perception with an overall weighted mean of 2.88 interpreted as disagree.

3. On the other hand, both motorcycle driver and commuters perceived the bigger, readable and color-coded number plates with an overall weighted mean of 2.68 and 3.38, interpreted as disagree. While, motorists driver assessment with an overall weighted mean of 3.29 interpreted as agree.

4. Moreover, there is still a need for public consultation/opinion before implementing such law since many of the respondents disagree on the written guidelines as to the criminal liability of the owner and driver of the motorcycle suggesting to lower the penalty to the violators since the fine/penalty was indicated on the signed law.

5. Lastly, the policy about the bigger, readable and color-coded number plates since to some, bigger front tin plates may cause injuries if detached and is discriminatory and creates the impression that all riders are criminals.

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HOPE AND LIFE SATISFACTION AS CORRELATES OF RESILIENCY AMONG SOLO PARENTS

Ruth Lareza A. Morales

INTRODUCTION

One of the vulnerable sectors of Philippine society is the solo parents. This was due to the absence of a life partner that leads them finding themselves besieged by the burdens of taking on the responsibility and rigid expectations both in the home and the workplace. In addition, most of the solo parents find themselves desperate for resources to support young children often left in their custody. Children of solo parents upon reaching adolescence faced problems which regards to their personal identification and living problems. Given this situation solo parents have then, have more risks to experience adverse circumstances that may affect their life satisfaction.

Life satisfaction is the way people show their emotions and feelings (moods) and how they feel about their directions and options for the future (Anand, 2016). Life satisfaction among solo parents might be influenced by the separation with their partners and multiple burdens. Interestingly, given this life situation, solo parents still do everything to provide their families hope, an environment of love, support and care.

Another field of interest to explore among solo parents is their capability to motivate themselves to their goals and feel better despite of their situation. This concept has lead researchers to explore this trait called "hope". Hope is defined as the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways (Snyder, 2002). Research endeavors flourished in an attempt to determine the characteristics, traits, or other protective mechanisms that allowed these individuals to adapt, cope and be successful in spite of adverse conditions (Ahern, 2007). In the case of solo parents, it is very interesting that in spite of adverse conditions they may be facing, they still adapt and cope that leads to the concept of resilience.

Resilience in psychology refers to the idea of an individual's ability to cope with stress and adversity. This coping may result in the individual "bouncing back" to a previous state of normal functioning, or experience the exposure of adversity to produce a "steeling effect" and function better than expected. Resilience can indicate a capacity to resist a sharp decline in functioning even though a person temporarily appears to get worse (Masten, 2009).

There are three primary objectives of this study:

1. To describe the level of hope, life satisfaction and resilience among solo parents;

2. To determine the correlations between the independent variables and dependent variable; and

3. To identify if the level of hope and satisfaction with life correlates with resilience among solo parents.

The researcher considered it sensible to create a conceptual framework in conducting this study. The independent variables of the study were locus of hope which consists of: pathways, agency and total and satisfaction with life while the dependent variable is resilience.

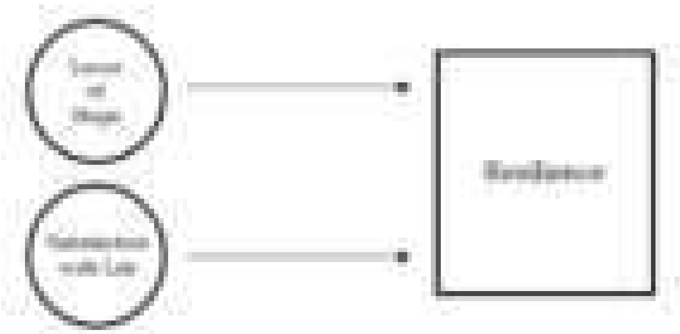

Figure 1. Conceptual Framework of the Study

As can be seen in Figure 1, the predictor variables of the study are Locus of Hope and Satisfaction with Life while Resilience as the criterion variable. The study would like to measure the levels of all the variables present in the study, their relationships and to find out which among the variables correlates criterion variables significantly.

Moreover, the relationships found could be the bases for recommendations to intensify the capability building of the Women's' Solo Parent as of what they think, pursue, feel, argue with important matters about health, solving problem, preparation of future, worries, goals and the way of attaining success in life.

METHOD

The descriptive-correlational method of research was used in the study. Since the study or investigation is concerned with level of hope, satisfaction with life and resilience among solo parents, the descriptive-correlational method of research is the most appropriate method to use. The respondents of the study were the female solo parents from the Federation of Solo Parents, LuzViMin. Inc. and other self-identified female solo parents which fits in the criteria of a solo parent. They were selected using purposive sampling. The participants were purposively selected in this study with the following criteria: (a) Widowed; (b) Suffered abandonment for at least one year; (c) Unmarried mother who wants to keep her child; (d) Parent left solo or alone with the responsibility of parenthood due to legal separation or de facto separation from spouse for at least one year, provided that she is entrusted with the custody of the children; (e) Parent left solo or alone with the responsibility of parenthood due to declaration of nullity or annulment of marriage as decreed by a court or by church, provided that she is entrusted with the custody of the children; or (f) Unmarried mother who has preferred to keep and rear her child/children instead of having others care for them up to a welfare institution; and (g) Willing to participate in the study.

RESULTS AND DISCUSSION

The scope of this study focused and delimited on the rating of the Solo Parent's level of hope based on the Adult Hope Scale- pathways and agency, Life Satisfaction using Satisfaction with Life Scale and Resilience using Brief Resilience Scale.

1. **Demographic Profile of the Respondents.** It has been shown that 32.5 percent of the solo parents were 18 – 22 years old, 30.0 percent were 33 years old and above, 26.0 percent were 23 – 27 years old, and 11.5 percent were 28 – 32 years old. It reveals that

most of the respondents are of the age bracket 18 – 22 years old. Despite of being solo parent, majority or 68.5 percent of them graduated of at least bachelor's degree, wherein 15.5 percent of them were doctoral degree holder, 13.0 percent were master's degree, and the remaining 40.0 percent were plane bachelor's degree. On the other hand, 31.5 percent of them are either high school graduate or have not finished college degrees. It was shown that majority of the solo parent-respondents or 62.0 percent have been a solo parent for 1 – 5 years, 23.5 percent experiencing a solo parent for 6 – 10 years. Furthermore, 7.5 percent have been a solo parent for 11 – 15 years, and 7.0 percent have been a solo parent for more than 15 years. It was revealed that more than 85 percent of the respondents have been a solo parent for at most 10 years. It was revealed that majority of the solo parents or 72.5 percent have 1 – 3 children, 22.0 percent have 4 – 6 children, 4.0 percent have 7 – 9 children, and few of them or 1.5 percent (or 3 solo parents) have 10 children or above. The status of employment of the solo parent-respondents was categorized as to self-employed or employed. It appeared that majority of them or 55.0 percent were employed, and the remaining 45.0 percent were classified as self-employed.

2. Level of Hope of the Solo Parents. Adult Hope Scale of the Solo Parents According to Age. It disclosed that solo parents who are 33 years old and above have an Agency score of 27.10 (High) and Pathway score of 27.63 (High) resulting to a Total Hope of 54.73 (High). On the other hand, solo parents with age 18 – 22 years old have an Agency score of 22.85 (Low) and Pathway score of 22.17 (Low) or with a Total Hope score of 45.02 (Low).

Adult Hope Scale of the Solo Parents According to Highest Educational Attainment. It was revealed that Doctorate degree holders have 26.84 (High) in Agency and 27.45 (High) in Pathway that give a Total of 54.29 (High). Likewise, Master's degree holders have 26.04 (High) in Agency and 26.00 (High) in Pathway having a Total of 52.04 (High). On the other hand, solo parents having a Bachelor's degree have 23.61 (Low) in Agency and 23.69 (Low) in Pathway that give a Total of 47.30 (Low).

Adult Hope Scale of the Solo Parents According to Length of Being Solo Parent. It was shown that respondents who have been solo parents for 6 – 10 years have an Agency score of 25.30 (High) and a Pathway score of 25.51 (High) or with a Total Hope score of 50.81 (High); respondents who have been solo parents for 11 – 15 years have an Agency score of 28.33 (High) and a Pathway score of 29.47 (High) or with a Total Hope score of 57.80 (High); and respondents who have been solo parents for 16 – 20 years have an Agency score of 28.86 (High) and a Pathway score of 28.50 (High) or with a Total Hope score of 57.36 (High). On the other hand, respondents who have been solo parents for 1 – 5 years have an Agency score of 23.38 (Low) and a Pathway score of 23.22 (Low) or with a Total Hope score of 46.60 (Low).

Adult Hope Scale of the Solo Parents According to Number of Children. **S**olo parents with 4 – 6 children have an Agency score of 25.89 (High) and a Pathway score of 26.52 (High) or with a Total Hope score of 52.81 (High); and solo parents with 7 – 9 children have an Agency score of 29.00 (High) and a Pathway score of 28.63 (High) or with a Total Hope score of 57.63 (High). On the other hand, solo parents with 10 children an above have an Agency score of 17.33 (Low) and a Pathway score of 18.33 (Low) or with a Total Hope score of 35.67 (Low).

Adult Hope Scale of the Solo Parents According to Status of Employment. It was shown that solo parents who were self-employed had an Agency score of 24.33 (Average) and a Pathway score of 24.02 (Average) or with a Total Hope score of 48.36 (Average). On the other hand, solo parents who are currently employed have an Agency score of 24.79 (Average) and a Pathway score of 25.06 (High) or with a Total Hope score of 49.85 (High).

3. The Level of Life Satisfaction of the Solo Parents. Level of Life Satisfaction of the Solo Parents According to Age. It gives that solo parents with age 33 years or above have a mean total of 24.70 or slightly satisfied, 28 – 32 years old have a mean total of 23.57 or slightly satisfied, 23 – 27 years have a mean total of 24.17 or slightly satisfied, and 18 – 22 years old have a mean total of 20.17 of slightly dissatisfied.

Level of Life Satisfaction of the Solo Parents According to Highest Educational Attainment. It was shown that solo parents with Doctorate degree have a mean total of 26.84 or with high satisfaction, solo parents with Master's degree have a mean total of 27.08 or with high satisfaction, solo parents with Bachelor's degree have a mean 23.23 or slightly satisfied, and solo parents who are non-Bachelor's degree have a mean total of 19.02 or slightly dissatisfied.

Level of Life Satisfaction According to Number of Years Being a Solo Parent. It was shown that those who have been solo parents for 16 – 20 years got a mean total of 26.21 or with high satisfaction; respondents who have been solo parents for 11 – 15 years got a mean total of 25.27 or with high satisfaction; respondents who have been solo parents for 6 – 10 years got a mean total of 24.77 or slightly satisfied; and respondents who have been solo parents for 1 – 5 years got a mean total of 24.77 or slightly satisfied.

Level of Life Satisfaction of the Solo Parents According to Number of Children. Solo parents who have 10 children and above got a mean total of 19.00 or slightly dissatisfied; solo parents who have 7 – 9 children got a mean total of 22.63 or slightly satisfied; solo parents who have 4 – 6 children got a mean total of 24.77 or slightly satisfied; and solo parents who have 1 – 3 children got a mean total of 22.93 or slightly satisfied.

Level of Life Satisfaction of the Solo Parents According to Status of Employment. Solo parents who were self-employed have a mean total of 22.52 or slightly satisfied; likewise solo parents who were employed have a mean total of 23.32 or slightly satisfied.

4. The Level of Resilience of the Solo Parents. Level of Resilience of the Solo Parents According to Age. Solo parents with age 33 years or above have a mean score of 3.38 or average; 28 – 32 years old have a mean score of 3.52 or high; 23 – 27 years have a mean score of 3.27 or average, and 18 – 22 years old have a mean score of 2.46 or low.

Level of Resilience of the Solo Parents According to Highest Educational Attainment. Solo parents with Doctorate degree have a mean score of 3.71 or high; solo parents with Master's degree have a mean score of 3.64 or high; solo parents with Bachelor's degree have a mean score of 3.09 or average; and solo parents who are non-Bachelor's degree have a mean score of 2.49 or low.

Level of Resilience According to Number of Years Being a Solo Parent. It reveals the level of resilience of the respondents when they are grouped according to number of years being a solo parent. It shows that respondents who have been solo parents for 16 – 20 years got a mean score of 3.26 or average; respondents who have been solo parents for 11 – 15 years got a mean score of 3.28 or average; respondents who have been solo parents for 6 – 10 years got a mean score of 3.55 or high; and respondents who have been solo parents for 1 – 5 years got a mean score of 2.84 or average.

Level of Resilience of the Solo Parents According to Number of Children. Solo parents who had 10 children and above got a mean score of 3.61 or high; solo parents who had 7 – 9 children got a mean score of 3.46 or average; solo parents who had 4 – 6 children got a mean score of 3.39 or average; and solo parents who had 1 – 3 children got a mean score of 2.94 or average.

Level of Resilience of the Solo Parents According to Status of Employment. Solo parents who are self-employed have a mean score of 2.94 or average; likewise solo parents who are currently employed have a mean score of 3.17 or average.

5. Relationship between Hope and Resilience. The relationship between resilience and the agency hope subscale have a computed r-value of 0.230 corresponds to very small positive correlation. Moreover, the relationship between resilience and the pathway hope subscale have a computed r-value of 0.282 corresponds to moderately small positive correlation. In general, the relationship between the level of resilience and the level of hope among the solo parents have a computed r-value of 0.266 or verbally interpreted as moderately small positive correlation.

6. Relationship between Life satisfaction and Resilience. The relationship between resilience and satisfaction had a computed r-value of 0.097 that corresponds to almost negligible positive correlation. The p-value of 0.173 suggests that there is no enough evidence to reject the hypothesis which states that there is no significant relationship between the level of satisfaction and the level of resilience among the solo parents at 0.05 level of significance. Therefore, the level of satisfaction of the solo parents has nothing to do with their level of resilience or vice versa.

7. Difference of Hope, Life Satisfaction, and Resilience according to their Profile

Age. It was shown that the F-value under hope total is 13.507 with almost zero p-value, resilience level has an F-value of 14.21 with almost zero p-value, and lastly the life satisfaction mean level has an F-value of 22.390 with almost zero p-value. These show that each of the three (3) categories when they are grouped according to their age have significant differences.

Highest Educational Attainment. The computed F-value under hope total is 5.620 with p-value = 0.001, resilience level has an F-value of 27.454 with almost zero p-value, and lastly the life satisfaction mean level has an F-value of 50.825 with almost zero p-value. These show that each of the three (3) categories when they are grouped according to their highest educational attainment have significant differences.

Number of Years as Being Solo Parent. The F-value under hope total is 13.230 with p-value of almost zero, resilience level has an F-value of 9.913 with p-value of almost zero, and lastly the life satisfaction mean level has an F-value of 10.543 with p-value of almost zero. These show that each of the three (3) categories when they are grouped according to number of years being solo parents have significant differences in the mean level.

Number of Children among Solo Parents. The F-value under hope total is 7.220 with p-value of almost zero, resilience level has an F-value of 4.363 with p-value of 0.005, and lastly the life satisfaction mean level has an F-value of 0.858 with p-value of 0.464. These show that the mean level in hope score and resilience vary when they are grouped according to the number of children they have. On the other hand, the solo parents have almost the same level of satisfaction in any number of children they have.

Employment Status among Solo Parents. It was shown that the t-value under hope total is 1.115 with p-value of 0.266, resilience level has a t-value of 1.839 with p-value of 0.067, and lastly the life satisfaction mean level has a t-value of 1.202 with p-value of 0.231. These show that the mean level in hope score, resilience, and life satisfaction don't differ when they are grouped according to their employment. It further concludes that solo parents who are employed have the same views with the solo parents who are self-employed in terms of level hope, level of resilience, and level of life satisfaction at 0.05 level of significance.

RECOMMENDATIONS

In view of the results of the study the following recommendations are being made:

1. **School support groups for solo parents and their children.** School institutions may organize support groups for single mothers where they share information and experiences on how to improve their situation. Likewise, schools need to set up guidance and counseling platforms for assisting children from single parents so that they cope with academic work and compete on an equal footing with children from intact families.

2. Strengthen mother and child relationship through school activities, like promoting a "mother and child bonding day."

3. To help augment the income of solo parents, the Federation can appeal to NGOs, local government units, TESDA, etc. to initiate livelihood programs and skills-training programs where the solo parents can learn to be more productive.

4. The Federation of Solo Parents should include among its services individual and group counseling and, thus, engage the services of psychologists who are readily available for counseling and consultation for its members.

5. Psychologists can consider strengthening their advocacy of helping this special group of individuals, especially those solo parents who are experiencing psychological crisis, lowered self-esteem, hopelessness and depression.

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TRACER STUDY ON THE EMPLOYMENT OUTCOMES OF BS CRIMINOLOGY GRADUATES OF EARIST FROM 2013-2015

Anabel DM Riva

INTRODUCTION

Safeguarding that students are well-equipped for post graduate work, in their chosen faculty, is a key feature of higher education. (Mattis, G., 2019)

Throughout the world, different countries are trying to create closer synergies between the needs and purposes of their education training systems, the local and regional labor markets, and their national economies. This is largely a result of an international consensus which, though contested, argues that people and organizations need to embrace new skills and knowledge at regular periods in order to meet the challenges of a much more dynamic and unstable economic climate. Such developments ask important questions of national education systems in terms of curriculum content, teaching and learning processes, skills acquisition and expertise of educational professionals. In an environment where there is lack of a systematic and accurate examination of employment outcomes of vocational training graduates such as is the case in Botswana, it is difficult to establish any synergy between the economy and labor markets. In such cases, tracer studies could be used as a means of maintaining curriculum relevance and providing targeted benefits to graduates to enhance marketability of vocational programs. Adequate knowledge on employment outcomes of vocational training graduates could assist in formulating policy towards combating some of social problems such as unemployment. (Bolaane, et.al, 2010)

An essential aspect of quality in higher education is the quality of the outcomes achieved. Higher education adds value by developing job-related skills and competencies that prepare students for the workplace. Institutions of higher education have the primary responsibility for equipping individuals with advanced knowledge and skills required for positions of responsibility in government, industry and other sectors. It is essential for any programmer of study to constantly evaluate its curriculum to ensure that its content remains relevant, of high quality and is in tune with the demand of the job market and one of the ways institutions do this is through tracer studies. Tracer studies, also known as graduate studies, alumni research or follow-up studies, target graduates of an institution of higher education to get information that indicates possible deficits in a given educational program and to serve as a basis for future planning activities. The information on the professional success (career, status, income) of the graduates are needed as well as information on the relevance of knowledge and skills, for example, relationship between knowledge and skills and work requirements, area of employment professional position, etc. (Mugwisi and Hikwa, 2015)

In China, since 2008, a worldwide financial crisis has aggravated the already serious problems in the Chinese job market for college graduates. The financial crisis has exerted profound impacts on economy and employment in China. On the demand side, economics growth rate has slowed down for lowered domestic demand, export demand, international trade and FDI scale, and trade in services, as well as the appreciation of Chinese currency due to the financial crisis. As a result, labor demand decreased not only in manufacturing and export-oriented entities, but also in the service sector, reducing the employment opportunities for college graduates. On the supply side, the number of college graduates in China has been growing rapidly because of continuously enlarged enrollment of higher education institutions since the late 1990s. Statistics show that, China's college graduates reached 6.10 million in 2009 and above 8 million college graduates including those who did not get employed in the past years would compete for employment opportunities provided that year. At the same time, the government has issued series of policies to stimulate economic growth and expand employment in order to narrow the great gaps between supply and demand in the labor market. (Ding Xiaohao, Yue Changjun, 2009)

Graduates are faced with the challenge of acquiring employment right after graduation not only because of no employment history but mainly lack of skills that suits the needs of the industry (Javier, B., 2018). About 65% of college graduates in the Philippines do not have the right skills and training for the jobs of their choice. This is one of the findings of the National Employability Report-Philippines conducted and released by India-Based employability assessment firm Aspiring Minds. This report brings to light the employability of graduates across different sectors of the knowledge economy. (Newsbytes, Philippines, 2017)

EARIST aims to be a center of excellence not only in teaching science and technology education but also in business and the arts. The university's mission is centered in producing disciplined and efficient graduates that are proficient in science and technology.

The College of Public Administration and Criminology where BS Criminology housed was the youngest college in EARIST. It started opening their first enrollment for freshmen under College of Business and Public Administration (COBPA) now College of Business Administration (CBA) in 2017 with more or less 30 students.

In 2009, it was separated from COBPA and established their own college known as the College of Public Administration and Criminology with Dr. Marlene M. Monterona as the first dean of the new college. It was followed by a short stint deanship of Dr. Jose Baesa for two months in 2010, followed by Dr. Diosdado A. Amante, again with a very short deanship in 2010, followed by Dr. Noel A. Oriel,(2011-2012). In 2013, the deanship was given to Dr. Elizabeth Soriano whish was replaced by Dr. Porferio M. Banzuelo in 2014. In 2015-2017 of May, the deanship was turn over to Prof. Estela G. David. O the present conduct of this study, it was given back to Dr. Marlene M. Monterona.

The first batch of Criminology Licensure Examination result was overwhelming with 86% of first time takers passed the said examination in 2011 with 20 examiners.

The Criminologists Licensure Exam 52%passing rate (first timers) and 48%Failure rate (first timers) based on the results of 4 board exams. In Metro Manila EARIST ranked 11 out of 29 schools 10 rank above 16 schools rank below EARIST and in the Philippines it was ranked 143 out of 437 schools, 34% rank above 66% of schools rank below EARIST.

The goal of the BS Criminology Program is to develop professional, competent and morally upright graduates who can deliver efficient and effective service in crime prevention, crime detection and investigation law enforcement and custody and rehabilitation of offenders, among others.

Its objectives

- To foster the values of leadership, integrity, accountability and responsibility while serving their fellowmen, community and country;

- To prepare the students for careers in crime prevention, law enforcement, scientific crime detection and correctional administration; and,

- To encourage research and inquiry on the nature causes treatment or punishment of criminal behavior and how criminal justice agencies respond to crime, criminals, and victims.

STATEMENT OF THE PROBLEM

This tracer study aimed to know the employment status of BS Criminology graduates of EARIST Batch 2013-2015.

Specifically, this sought answers to the following;

1. What is the profile of the respondents in terms of:
   - 1.1 age;
   - 1.2 gender;
   - 1.3 civil status;
   - 1.4 highest degree earned;
   - 1.5 professional examinations passed;
   - 1.6 present occupation;
   - 1.7 employment status; and
   - 1.8 place of work?
2. How long is the period in searching for a job from the date of graduation in the present Job?
3. How the relevant is the program to your present job?
4. What skills have you learned that are relevant to your present job?

This result of this study is very significant to the students, graduates, CPAC and its administrators and the curriculum maker to enhance the

MATERIAL AND METHODOLOGY

An online survey was used to collect the data from the graduates involved in this study. The survey questionnaire was sent to the graduates of Batch 2013, 2014 and 2015. The researcher asked the help of each and every graduates to provide information of their batch mates. The researcher created a group chat on Facebook and included all the graduates of the aforementioned batched. Responses were tallied and then presented in tables and later verbally interpreted. As to the statistical treatment used in this study, the researcher employed percentage and frequency.

RESULT AND DISCUSSION

This part deals with the answers on the problems raised in the first part of this study. It provides the result of the study presented in tabular form and later on verbal interpertation.

Table 1 show the profile of respondents according to the year they graduated.

Table 1

Profile of the Respondents According to the Year they Graduated

Year Graduated	No. of Graduates	No. of Graduates Responded	Percentage
2013	73	27	36.99%
2014	142	46	32.39%
2015	141	19	13.48%
Total	**356**	**92**	**25.84%**

As shown in Table 1, it can be seen that 25.84% or 92 out of 356 of the total graduates from 2013-2015 were involved in this study. The most number of partcipants came from batch 2014 with a total of 46 but since the number of total graduates is 142 it only got 32.39%. Moreover, 27 out of 73 or 36.99% was graduates of 2013. The least number of particpant came from batch 2015 with 19 out of 141 or 13.48%.

Table 2

Profile of Respondents According to Age

Age	Frequency	Percentage
21-25	65	70.65
26-30	26	28.26
31-35	0	0.00
36-40	1	1.09
40 above	0	0.00
Total	**92**	**100.00**

Table 2 shows the age profile of the rspondents. It can be seen that the age bracket of 21-25 got the highest number of particpiants with 65 or 70.65 %. It was followed by 26-30 group with 26 or 28.26%. the least number of age group got the smallest number of paricipants is age group 36-40 with 1 or 1.09%.

Table 3

Profile of Respondents According to Gender

Gender	Frequency	Percentage
Female	19	21%
Male	73	79%
Total	**92**	**100**

Table 3 shows the distribution of respondents according to gender. It can be gleaned that majority of the respondents came from male group evidenced by 73 or 79% while the female group got 19 or 21%. This indicates that the Criminology program is dominated by male group.

Table 4

Profile of Respondents According to Civil Status

Civil Status	Frequency	Percentage
Single	31	33.70
Married	61	66.30
Legally Separated	0	0
Widow/er	0	0
Total	**92**	**100**

Table 4 reveals the distribution of respondents according to civil status. It can be deducted that majority of the respondents were married reinforced by 61 or 66.30%. On the other hand, single group garnered 31 or 33.70%. None from the respondent came from legally separated and widor/er group.

Table 5

Profile of the Respondents According to Highest Educational Attainment

Highest educational Attainment	Frequency	Percentage
College Graduate	90	97.8
with MA units	1	1.1
MA Graduate	1	1.1
Total	**92**	**100**

Table 5 shows that majority of the respondents earned their college degree or college graduate evidenced by 90 or 97.8%., while 1 or 1.1% fall under with MA units and MA graduate. This This implies that most of the respondents have considered finding job after college.

Table 6

Profile of Respondents According to Professional Examinations Passed

Eligibility	Frequency	Percentage
RA 6506/RA 1080	87	94.57
None	5	5.43
Total	**92**	**100**

Table 6 reveals the profile of the respondents according to professional examination passed. Majority of the repsondents were RA 6506/RA 1080 passers evidenced by 87 or 94.57%. five of the participants did not hold any eligibility verified by 5 or 5.43%.

Table 7

Profile of Respondents According to Present Occupation

Present Occupation	Frequency	Percentage
BFP	1	1.1
BJMP	2	2.2
PNP	67	72.8
Other Law Enforcement Agencies	12	13.0
Private Entity	10	10.9
Total	**92**	**100**

Table 7 discloses the present occupation of the respondents. It can be deducted that majority of the respondents were employed under Philippine National Police demonstrated by 67 or 72.8%. 12 or 13% were employed on different law enforcement agencies of the government while 10 or 10.9 were engaged in private entity. 2 or 2.2 % are working under Bureau of Jail Management and Penology and 1 or 1.1 at Bureau of Fire Protection.

Table 8

Profile of the Respondents According to Employment Status

Employment Status	Frequency	Percentage
Permanent	81	88.04
Temporary	6	6.52
Contractual	4	4.35
Casual	1	1.09
Total	**92**	**100**

Table 8 divulges the profile of the respondents according to employment status. It can be deduced that majority of graduates were permanent being employed under government entities verified by 81 or 88.04 % while 6 or 6.52% were temporary, 4 or 4.35% were contractual and 1 or 1.09% was casual. This denotes that indeed, this graduates during their freshmen days dreamed of joining in the Police Organization.

Table 9

Profile of the Respondents According to Place of Work

Place of Work	Frequency	Percentage
NCR	81	88.04
Region 3	1	1.09
Region 4A	1	1.09
Region 4B	3	3.26
Region X	5	5.43
OFW	1	1.09
Total	**92**	**100**

Table 9 displays the place of work of the graduates of EARIST involved in this study. It can be construed that majority of the graduates place of work is in National Capital Region demonstrated by 81 or 88.04%. This is because EARIST is situated within the Metro. Majority of students catered in this institution came from districts of Manila and neighboring cities. 3 5 or 5.43% were assigned in Region X. this graduates were member of the PNP Maritime Group. 3 or 3.26% came from Region 4B. This is true because EARISt is not only catering residents within Manila and its neghboring cities but as well as neighboring regions and provinces of NCR. 1 or 1.09% came from Region 4A and Region 3. One graduate who participated in this study is an OFW.

Table 10

Period in Searching for a Job from the Date of Graduation in the Present Job

Years to be Employed After Graduation	Frequency	Percentage
0 months to less than a year	2	2.2
1 year	26	28.3
2 years	47	51.1
3 years	14	15.2
4 years	2	2.2
5 years	1	1.1
Total	**92**	**100**

Table 10 shows the period of searching for a job after graduation in the present job. Majority of graduates got their present job after graduation within 2 years evidenced by 47 or 51.1%. 26 or 28.3% got their present job within a year; 14 or 15.2% landed their within three years. 2 or 2.2 percent got their job after 4 years and 1 or 1.1 participant got his job after 5 years. This result can be explained by the long process of their application in government entity, the PNP in particular.

Table 11

Relevance of the Program to the Present Job

Relevancy	Frequency	Percentage
Very relevant	80	87.0
Relevant	5	5.4
Less Relevant	7	7.6
Least Relevant	0	0
Total	**92**	**100**

Table 11 presents of the relevancy of the program to the present job of the graduates. It can be shown that 80 or 87% finds their program very relevant while 7 or 7.6% find it less relevant and 5 or 5.4 find it relevant. This is supported that the Criminology program is geared towards development of students in scientific crime detection, police administration criminal justice system. It aims to equip its students with the knowledge and technical skills that will help them successfully practice law enforcement and contribute to the criminal justice system to serve integrity with moral and spiritual uprightness with the end objective of enhancing public safety and security.

Table 12

Skills Learned that are Relevant to the Present Job

Skills	Frequency	Percentage
Communication skills	6	6.52
Human Relations Skills	5	5.43
Problem solving skills	4	4.35
Investigative skills	77	83.70
Total	**92**	**100**

Table 12 shows the skills learned in school that is considered relevant to their present job. It can deduct that the most skill considered to be useful is the investigative skill which earned 77 or 83.70% responses from the respondents. It was followed by communication skill with 6 or 6.52% of responses; human relations with 5 or 5.43% and problem solving with 4 or 4.35% responses. Again, this was supported that the Criminology program is geared towards development of students in scientific crime detection, police administration criminal justice system. It aims to equip its students with the knowledge and technical skills that will help them successfully practice law enforcement and contribute to the criminal justice system to serve integrity with moral and spiritual uprightness with the end objective of enhancing public safety and security.

CONCLUSIONS

From the findings of the study, the following conclusions were drawn:

1. The BS Criminology program is male-dominated. The program trained and educates the student to join the police force which is basically dominated also by male group. Moreover, RA 6975 allotted five (5) percent only to female factor in the police service.

2. Most of the graduates of BS Criminology possessed RA 6508/RA 1080 eligibility. Since the BS Criminology program is a board program, students aimed to passed the licensure examination to enjoy the privileges od a Registered Criminologist granted under RA 6505 which amended by Ra 11131.

3. Passing the board exam for Criminologist is a guarantee for immediate employment and permanency in the job.

4. Most of the graduates are employed in their fields of specialization on a permanent status. The graduates are prepared to join the law enforcement force which is governed and administered by the national government.

5. Graduates took a long period before getting employed, two years in particular.

6. The skills possessed by the graduates are relevant to their present job specially the investigative capability. Further, investigative capability is one of the core subjects in BS Criminology program.

RECOMMENDATIONS

On the basis of the findings and conclusions, the following were recommended:

1. There is a need for regular graduate surveys to allow for monitoring over time, especially with regard to graduates' transition into the labor market and their labor market outcomes.

2. Yearly update of the employment status of the graduates should be made to determine their status.

3. The Office of Students Affairs and Services (OSAS) thru its Placement Office should help graduates seek for employment to minimize underemployment of its graduates. This can be done thru job fair before graduation. There must be list of companies that will cater BS Criminology graduates.

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IMPACT STUDY ON THE LEVEL OF ACCEPTABILITY OF WORKTEXT IN BASIC AND ADVANCED KEYBOARDING AND DOCUMENTS PROCESSING: AN ASSESSMENT

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INTRODUCTION

Keyboarding and Document Processing is a major subject in Office Administration. The students will be able to acquire keyboarding skills that are necessary for the preparation of letters, memoranda, reports and other business forms and communications. Students will improve keyboarding techniques with exercises emphasizing the touch method technique (home keys) techniques using Word Processing and Spreadsheet. This could develop the students' ability to attain a speed of 35-45 gross words a minute (GWAM) with tolerable or fewer errors on a 3 or 5-minutes timed writing. The subject carries 3 units, 3 hours a week. Competencies and skills must be achieved gradually. Lectures, speed test, and hands-on activities in production typing are constantly provided.

The College guidelines on textbook/instructional materials development, pursuant to Republic Act 8293, encouraged full-time faculty members to develop textbook/instructional materials that will develop competencies as required by the subject. Moreover, the Presidential Decree No. 6-A, known as the Educational Development Act of 1972, explicitly stated one of the objectives of tertiary education in the following statement: "Develop the high level professions that will provide leadership for the nation, enhance knowledge through research, and apply new knowledge for improving the quality of instruction." This objective shall be attained through the design, utilization, and improvement of instructional technology and development/production of textbooks and other instructional materials.

STATEMENT OF THE PROBLEM

This study aimed to find out the level of acceptability of Work Text in Basic and Advanced Keyboarding and Documents Processing by the BSOA Faculty and Student-respondents.

1. What is the demographic profile of the respondents in terms of:

   1.1 Gender; and

   1.2 Age?

2. What is the level of acceptability of the developed Work Text in Basic and Advanced Keyboarding and Documents Processing as assessed by the two groups of respondents in terms of:

   2.1 Objectives;

   2.2 Contents;

   2.3 Language and Style;

   2.4 Usefulness;

   2.5 Application; and

   2.6 Evaluation

3. Is there a significant difference in the responses of the respondents on the level of acceptability of the developed work text in terms of the aforementioned variables?

4. How do the students perform in the pre-test and post-test after using the Work text in Basic and Advanced Keyboarding and Documents Processing?

5. Is there a significant difference in their performance?

MATERIALS AND METHODS

The descriptive methods of research were utilized in which two (2) major groups of respondents were chosen using the purposive sampling procedures. Through the sets of survey questionnaires, the much-needed data were gathered, tabulated and summarized and ultimately subjected to statistical treatment to answer the three (3) specific questions raised in the study. More specifically, the assessment was described in Five Likert Scale categories: very acceptable, acceptable, moderately acceptable, slightly acceptable and not acceptable.

The following were utilized in the treatment of data:

Weighted Mean. This was used to measure the respondent's responses to determine the acceptability level of Work text in Keyboarding. The Formula is:

$$x = \sum \frac{(f) - (w)}{2}$$

Where:

X = Weighted Mean
∑ = Summation
N = Number of respondents
f = Frequency
W = Weighted factor

The data were interpreted using the Five-Likert Scale

Scale	Equivalent	Descriptive Rating
5	4.20-5.00	Very Acceptable (VA)
4	3.40-4.19	Acceptable (A)
3	2.60-3.39	Moderately Acceptable (MA)
2	1.80-2.59	Slightly Acceptable (SA)
1	1.00-1.79	Not Acceptable (NA)

T-test. This was used to determine the significant differences in the assessment between the two groups of respondents on the level of acceptability of work text in Keyboarding and the performance of the students in pretest and posttest. The formula is:

$$t = \frac{x_1 - x_2}{\sqrt{\frac{S_1^2}{N^1} + \frac{S_2^2}{n^2}}}$$

Where:

X_1 = mean of the first group
X_2 = mean of the second group
S_1^2 = variance of the first group
S_2^2 = variance of the second group
N^1 = number of cases of the first group
N^2 = number of cases of the second group

RESULTS AND DISCUSSION

1. On the Demographic Profile of the Respondents

Table 1

Frequency and Percentage Distribution of Respondents According to Age

Age Range	Faculty		Age Range	Students	
	F	%		F	%
26-30	1	5.00	16-18	51	0.51
31-35	2	10.00	19-21	35	0.35
36-40	3	15.00	22-24	10	0.10
41-45	5	25.00	25-27	4	0.04
46-50	2	10.00	28-30	0	0.00
751 above	7	35.00	31 above	0	0.00
TOTAL	**20**	**100.00**		**100**	**100.00**

Out of 20 faculty-respondents, the youngest consist of 1 or 5 percent belong to the age bracket of 26-30 years old, the oldest consist of 7 or 35 percent belong to the age bracket of 51 and above years old.

On the contrary, out of 100 student-respondents, 51 or 51 percent are 16-18 years old, 35 or 35 percent are 19-21-years old, the oldest is 4 or 4 percent belong to 25-27 years old.

As a whole, the majority of the faculty respondents belong to 51 and above years old, while student-respondents are 16-18 years old.

Table 2

Frequency and Percentage Distribution of Respondents According to Gender

Gender	Faculty		Students	
	F	%	F	%
Male	3	15.00	35	35.00
Female	17	85.00	65	65.00
TOTAL	**20**	**100.00**	**100**	**100.00**

Out of 20 faculty-respondents, only 3 or 15 percent were males, while 17 or 85 percent were females. On the other hand, majority of the student-respondents were females or 65 or 65 percent, and 35 or 35 percent were males.

As a whole, most of the respondents are female.

2. On the level of acceptability of the developed Work Text in Keyboarding and Documents Processing as assessed by the two groups of respondents.

As to Objectives. The two groups of respondents confirm that the work text in Keyboarding is **Very Acceptable** in providing direction to learners and to the learning content, objectives are clearly stated, the objectives are related to the content, objectives are specific, measurable, achievable and time-bound, and objectives are expressed in language that is easy to understand. The overall weighted mean of **4.36** obtained by the students and faculty, respectively with "**Very Acceptable**" verbal Interpretation could be deduced that both respondents are satisfied with the objectives of lessons in the work text.

As to Content. The assessment of the two groups of respondents includes: the concept prepares the student for practical application, the subject is arranged in logically sequences, illustrations are provided to understand concepts better, time allotment is provided, and the concept for each activity is arranged logically w/o duplication. This obtained an overall weighted mean of **4.55** and **4.30**, respectively, and described as **Very Acceptable**.

As to Language and Style. Students and faculty respondents assessed the developed work text in Office Procedure as "**Very Acceptable** " with an overall weighted mean of **4.29** and **4.39**, respectively.

As to Usefulness. Both groups of respondents evaluated the work text in Keyboarding as "Very acceptable" with an Overall weighted mean of **4.52** and 4.**44**, respectively, and all are interpreted as "**Very Acceptable**".

It indicates that the work text accompanied by technical terms explained extensively using definitions and sample exercises and timed writing practices makes Keyboarding and Documents processing interesting and easily understood subject. The findings confirm that students and professors discern the work text in Keyboarding as valuable instructional material in the teaching-learning process.

As to Application. The assessment of the two groups of respondents includes procedure is clear and can be easily understood, the illustrations are properly drawn and labeled, the instruction is clear, logical and suitable, the evaluation/direction are clear, and application of the lesson is sequential. The findings illustrate that the respondents have a similar assessments as regards the application as confirmed in their overall weighted mean of **4.35 and 4.42 interpreted as very acceptable.**

As to Evaluation. As a whole, both groups of respondents assessed the work text in Keyboarding as "**Very Acceptable**" with a nearly identical overall weighted mean of 4.35 and 4.42, respectively.

Table 3

Summary Table on the Acceptability of Work Text in Keyboarding and Documents Processing as assessed by OA Faculty and Students

Indicators	Faculty		Students	
	WM	VI	WM	VI
Objectives	4.36	Very Acceptable	4.36	Very Acceptable
Contents	4.55	Very Acceptable	4.30	Very Acceptable
Language and Style	4.29	Very Acceptable	4.39	Very Acceptable
Usefulness	4.52	Very Acceptable	4.41	Very Acceptable
Application	4.35	Very Acceptable	4.42	Very Acceptable
Evaluation	4.35	Very Acceptable	4.42	Very Acceptable
TOTAL	**4.40**	**Very Acceptable**	**4.38**	**Very Acceptable**

Table 3 shows a summary of the responses of respondents on the level of acceptability of Work text in Keyboarding and Documents Processing. Both groups of respondents have similar assessments in terms of Objectives, Contents, Language and Style, Usefulness, Application and Evaluation as evidenced by the obtained Overall weighted Mean of **4.40** and **4.38** interpreted **as Very Acceptable.**

The findings imply that for the students and faculty respondents, the developed work text is acceptable to be utilized as instructional material in the teaching of Keyboarding.

3. On the Significant Difference on the Level of Acceptability of Respondents on the Developed Work Text in Basic and Advanced Keyboarding and Documents Processing

As revealed in Table 4, there is no significant difference in the assessment of the two groups of respondents on the level of acceptability of the work text in Keyboarding and Documents Processing, in terms of the aforementioned variables since all the computed t-values are lesser than the critical value of 1.995 at .05 level of significance and 68 degrees of freedom. Hence the Null hypothesis is **accepted.**

Table 4

Summary of Computed t-values determining the Significant Differences in the Assessment of two groups of Respondents on the Level of Acceptability of Work Text in Keyboarding

Variables	Student		Faculty		t -stat	Critical value	Decision	Interpretation
	Grand Mean	VI	Grand Mean	VI				
1. Objectives	4.36	VA	4.36	VA	-6.6	1.995	Accept H_o	Not Significant
2. Content	4.55	VA	4.30	VA	1.508	1.995	Accept H_o	Not Significant
3. Language & Style	4.29	VA	4.39	VA	-0.797	1.995	Accept H_o	Not Significant
4. Usefulness	4.52	VA	4.41	VA	0.7811	1.995	Accept H_o	Not Significant
5. Application	4.35	VA	4.42	VA	-0.567	1.995	Accept H_o	Not Significant
6. Evaluation	4.35	VA	4.42	VA	-0.635	1.995	Accept H_o	Not Significant

Legend:

5	4.20-5.00	Very Acceptable (VA)
4	3.40-4.19	Acceptable (A)
3	2.60-3.39	Moderately Acceptable (MA)
2	1.80-2.59	Slightly Acceptable (SA)
1	1.00-1.79	Not Acceptable (NA)

Table 5

Comparison of the Performance of the BSOA Students in the Pre-test and Post-test

Test	Mean Score	t-value	Verbal Int.	Decision
Pre-test	16.78	17.606	Significant	Reject Ho
Posttest	44.30			

Legend:

Level of Significance = 0.05
Degrees of Freedom = 48
Critical Value = 1.648
Number of items = 50

Comparing the results of the pre-test and post-test of the students yielded a t- value of 17.606 which is exceeded the critical value of 1.648 at 0.05 level of significance and verbally interpreted as significant, rejecting the null hypothesis that there is no significant difference between the results of the pre-test and post-test after using the developed work text in Basic and Advanced Keyboarding and Documents Processing. The students performed better in their post-test indicating a substantial increase in learning using the material.

CONCLUSIONS

In the light of the findings, the following conclusions were drawn:

1. Majority of the faculty-respondents is female and 51 and above years old, while students are 16-18 years old and female.

2. Students and faculty members have almost the same assessment on the level of acceptability of work text in Keyboarding in terms of objectives, contents, language and style, usefulness, application and evaluation.

3. No significant differences existed in the assessment of the two groups of respondents on the acceptability of work text in Keyboarding in terms of the aforementioned variables.

4. There is a significant difference between the results of the pre-test and post-test after using the developed work text in Basic and Advanced Keyboarding and Documents Processing. The students performed better in their posttest indicating a substantial increase in learning using the material.

RECOMMENDATIONS

From the foregoing conclusions, the researcher offers the following recommendations:

1. Utilization of the developed work text in Keyboarding is strongly recommended in the College.

2. Revision and modification of the developed work text should be done at least every year to fit the learning needs and abilities of the students.

3. Assessment on the level of acceptability of the developed work text may be conducted using other respondents in other schools.

4. Further study is strongly recommended using other factors and other variables.

5. A similar study should be conducted in other areas to be validated.

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EMPLOYERS FEEDBACK TO EARIST BACHELOR OF SCIENCE IN TOURISM GRADUATES BATCH 2016-2018

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INTRODUCTION

Tourism is a fast-growing industry, and is a key to a country's economy. The number of tourist is growing from year to years. Tourism is one of the sectors that are growing at a fast rate in the world today. It earns foreign exchange to several countries in the world. The tourism industry is a highly competitive business which requires the participation of the government, the public and non-government sector to ensure its success. Tourism graduates in the Philippines choose the course because it is one of the largest industries in the world that contributes to the economic growth of a country. And most of them are always want to communicate different people in different walks of life.

Bachelor of Science in Tourism graduates in EARIST choose the course because there are so much opportunities waiting at your door step, Tourism and Hospitality is a wide industry, it is everywhere, from school to churches, from government to private sectors, from hotels to restaurants, from plane to cruise ship, from office to grounds Tourism and Hospitality industry is everywhere. But not of all the graduates of Bachelor of Science in Tourism in EARIST are working in the tourism industry. The problem that the most encountered is there’s a lot of tourism students that are graduating every year. Employment is a relationship between two parties, usually based on a contract, one being the employer and the other being the employee. One of the most daunting tasks any company has is to find employees and expand their team. Evaluating the different employees is very important. The purpose of an employee evaluation is to measure job performance.

Training and development as a function concerned with organizational activity aimed at bettering the job performance of individuals and groups in organizational settings. Training is a program that helps employees learn specific knowledge or skills to improve performance in their current roles. An appropriate level of training and development helps to improve employee’s job satisfaction for them to have a good feedback to their employers. Unemployment is a global issue which happens in developed, under developed and developing countries. The major evidence is that even the developed countries are battling with unemployment issues. There are establishing programs that will help decrease the rate of the unemployment in the country. CHED also helps in giving priority courses; these courses are the most in need for the country. The problem most encountered in employment is that every year in some courses they were a lot of graduates so that the competition to their employment is very high. That’s why most of the fresh graduates are unemployed.

The study aimed to investigate the performance of EARIST Bachelor of Science in Tourism Batch 2016-2018 Graduates through the feedbacks given by their employers. Also to know if the Bachelor of Science in Tourism graduates of EARIST has enough knowledge and has the professional skills to work in the tourism industry and this would help the school if they need to improve the curriculum.

METHODOLOGY

In collection of data, the researchers utilized the descriptive method of research design that describes, interprets and reveals the Employers Feedback to EARIST Bachelor of Science in Tourism Graduates Batch 2016-2018. In this study the researchers used the questionnaire and interview to gather information from groups of subject.

Descriptive design aimed to gain more information regarding particular characteristics within the particular field of study. In generally took raw data collected from the questionnaire and interview and summarize them. In this study, the researchers used purposive sampling. The main goal of the purposive sampling is to focus on particular characteristics of a population that we are of interest, in which will best enable to answer the research question. Also known as judgmental, selective or subjective sampling, purposive sampling relies on the judgment of the researcher when it comes to selecting the units.

RESULTS AND DISCUSSION

Sub-problem No. 1 How do the selected employers assess the Bachelor of Science in Tourism Graduates?

Table 1
Assessment of the Employers of Bachelor of Science in Tourism Graduates

Criteria	Batch 2016-2017		Batch 2017-2018		Composite		Rank
	WM	VI	WM	VI	WM	VI	
1. Quality	4.20	HS	4.93	HS	4.57	HS	4
2. Quantity	4.27	HS	4.80	HS	4.54	HS	5
3. Adaptability	4.33	HS	4.67	HS	4.50	HS	6
4. Cooperation	4.53	HS	4.93	HS	4.73	HS	2
5. Reliability	4.67	HS	4.73	HS	4.70	HS	3
6. Attendance and Punctuation	4.60	HS	4.93	HS	4.77	HS	1
Overall Weighted Mean	**4.43**	**HS**	**4.83**	**HS**	**4.63**	**HS**	

Legend:

Option	Range	Verbal Interpretation	Symbol
5	4.20 – 5.00	Highly Satisfied	HS
4	3.40 – 4.19	Satisfied	S
3	2.60 – 3.39	Moderately Satisfied	MS
2	1.80 – 2.59	Fairly Satisfied	FS
1	1.00 – 1.79	Not Satisfied	NS

As revealed in table, the assessment of the employers of Bachelor of Science in Tourism Graduates was rated as highly satisfied with an overall composite weighted mean of 4.63. All items were rated as highly satisfied, namely; always come to work on time. almost complete attendance with a composite weighted mean of 4.77 as rank 1; the relationship with supervisor and co-workers including the willingness to help others with their overloads with a composite weighted mean of 4.73 as rank 2; the extent to which the employee can be relied on to complete responsibility in a timely manner with a composite weighted mean of 4.70 as rank 3; the accuracy, thoroughness and acceptability of work performed with a composite weighted mean of 4.57 as rank 4; the volume of work produced with a composite weighted mean of 4.54 as rank 5; and the response to changing requirements and conditions with a composite weighted mean of 4.50 as rank 6.

Further, the group of respondents' assessment of the employers of Bachelor of Science in Tourism Graduates were rated as highly satisfied were rated as highly satisfied, these were: employers of batch 2016-2017 with a composite weighted mean of 4.43; and employers of batch 2017-2018 with a composite weighted mean of 4.83.

Sub Problem No. 2 Is there a significant difference in the assessment of the employers of Bachelor of Science in Tourism when grouped according to batch?

Table 2

Comparison of Assessment on the Employers of Bachelor of Science in Tourism Graduates as to Batch

DF	WM	SD	t-value	critical value	Decision	Interpretation
28	4.43	0.04	1.701	Accept Ho	Not Significant	1.701
	4.83	0.01				

Legend: @0.05 level of significance

As depicted in table the computed t-value on the Assessment of Employers of Bachelor of Science in Tourism Graduates as to Batch is 0.32055 which is lower than the critical value of 1.701 with the degree of freedom of 28 at 0.05 level of significance. Hence, there is no significant difference on the assessment of Employers of Bachelor of Science in Tourism Graduates as to Batch. Therefore, the hypothesis is accepted.

Sub-problem No. 3 What are the common problems encountered by the Employers on the Bachelor of Science in Tourism Graduates.

Table 3

Problems Encountered of the Employers of Bachelor of Science in Tourism Graduates

Indicators	**Batch 2016-2017**		**Batch 2017-2018**		**Composite Mean**		**Rank**
	WM	**VI**	**WM**	**VI**	**WM**	**VI**	
1. Employee is not well matched for the job	1.85	LE	1.95	LE	1.90	LE	7
2. Brings problem from home	4.00	E	4.10	E	4.05	E	1
3. Disinterested with the job	2.10	LE	2.05	LE	2.05	LE	6
4. Personality disorder	1.50	NE	1.65	NE	1.58	NE	8
5. Basically immature	2.50	LE	3.00	ME	2.75	ME	3.5
6. Absenteeism and tardiness	2.70	ME	2.80	ME	2.75	ME	3.5
7. Insubordination and uncooperativeness	2.00	LE	2.15	LE	2.08	LE	5
8. Employee Theft	1.00	NE	1.00	NE	1.00	NE	9.5
9. Alcohol	3.50	E	3.90	E	3.70	E	2
10. Drugs	1.00	NE	1.00	NE	1.00	NE	9.5
Overall Weighted Mean	**2.22**	**LE**	**2.36**	**LE**	**2.29**	**LE**	

Legend:

Option	**Range**	**Verbal Interpretation**	**Symbol**
5	4.20 – 5.00	Highly Encountered	HE
4	3.40 – 4.19	Encountered	E
3	2.60 – 3.39	Moderately Encountered	ME
2	1.80 – 2.59	Least Encountered	LE
1	1.00 – 1.79	Not Encountered	NE

As presented in table the problems encountered by the employers of Bachelor of Science in Tourism Graduates were rated as least encountered with an overall composite weighted mean of 2.29. Two (2) items were rated as encountered, namely; brings problem from home into the workplace with a composite weighted mean of 4.05 as rank 1; and alcohol with a composite weighted mean of 3.70 as rank 2. Two (2) items were rated as moderately encountered, namely; basically immature and absenteeism and tardiness with a composite weighted means of 2.75 as rank 3.5. Three (3) items rated were as least encountered, namely; insubordination and uncooperativeness with a composite weighted mean of 2.08 as rank 5; disinterested with the job with a composite weighted mean of 2.05 as rank 6; and employee is not well matched for the job with composite weighted mean of 1.90 as rank 7. Three (3) items were rated as not encountered, namely; Personality disorder with a composite weighted mean 1.58 as rank 8; employee theft and drugs with a composite weighted means of 1.00 as rank 9.5.

CONCLUSIONS, AND RECOMMENDATIONS

From the findings of the study, the following are the conclusions.

1. The group of respondent's assessment of the Employers of Bachelor of Science in Tourism Graduates was rated as a highly satisfied.

2. There is no significant difference on the assessment of Employers of Bachelor of Science in Tourism Graduates as to Batch.

3. The problems were least encountered by the employers of Bachelor of Science in Tourism Graduates.

Based from the findings of the study, the following recommendation are possible to offer.

1. The administration and the industry partners should continue to work hard in hand developing the skills and competencies of the Bachelor of Science in Tourism Graduates of EARIST to sustain the highly satisfied assessment.

2. Get the feedback gathered from Tourism Graduates and Employees Feedback continuously.

3. Least encountered should be address thru the school conduct the employment server.

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CORPORATE SOCIAL RESPONSIBILITY (CSR) OF SELECTED LOCATOR-INDUSTRIES: BASIS FOR LINKAGES AND PARTNERSHIP

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Irma F. Filler

INTRODUCTION

A corporation exists and is given recognition by society, through its instrumentality of public authority. Thus, social responsibility and responsible citizenship are embedded at the very core of the corporation. Corporations establish, operate, and sustain themselves for purposes that have a direct bearing on the common good of society.

Corporate Social Responsibility (CSR) is considered as voluntary behavior that attributes to the society welfare. Corporations should not only concentrate on their economic and business outcomes, but also give attention of their effect on the society and the environment. Practicing Corporate Social Responsibility on the business cannot be overemphasized. Its concerned is not only on the profits but on the environmental improvements as well. It can go a long way to improve on product quality and service to customers.

Locators industries in Clark Freeport Zone are establishments who have relocated to get tax a grant and paying only a minimal tax fee of 5 percent. The idea that various locators in Clark Freeport Zone where they should be more socially responsible, fails to give adequate ethical guidance to the executives must decide which causes to pursue and how much to commit to them. This problem becomes severe. Locators were committed to exercise greater social responsibility, and need more specific moral rules or principles to give them reasons for acting in one way rather than another. It is for this reason that this study was conducted to determine the corporate social responsibility practices, impact of selected locator-industries in Clark Freeport Zone, the facilitating and hindering factors in the implementation of corporate social responsibility programs.

The researchers believed that for Corporate Social Responsibility to be effective and sustainable, there must be support from business leaders. Corporate officers have a vital role in championing CSR in the company; therefore, it is very important to determine the practices so that a company can reinforce and apply it to his company. For this to be materialized, it is essential to examine the dimensions that serve as guides to determine the best CSR practices as well as the facilitating and hindering factors affecting the CSR programs.

Statement of the Problem

Specifically, it sought to answer the following questions:

1. What are the Corporate Social Responsibilities Practices of the locator-industries as assessed by the implementers and adaptors in terms of:

    1.1 Relevance and Responsiveness;
    1.2 Access and Equity;
    1.3 Efficiency and Effectiveness; and
    1.4 Partnering with Experts?

2. Is there a significant difference in the assessment of the groups of respondents on the Corporate Social Responsibilities Practices?

3. What is the impact of Corporate Social Responsibilities Program to the adaptors in terms of:

3.1 Economic;
3.2 Knowledge; and
3.3 Skills?

4. Is there a significant relationship between the Corporate Social Responsibilities practices and the impact to the adaptors?

5. What are the facilitating and hindering factors experienced by the respondents?

6. Based from the findings, what linkages and partnership for SUCs may be proposed?

Conceptual Framework

This study used the Input-Output-Process (IPO) Model System Analysis as shown in Figure 1.

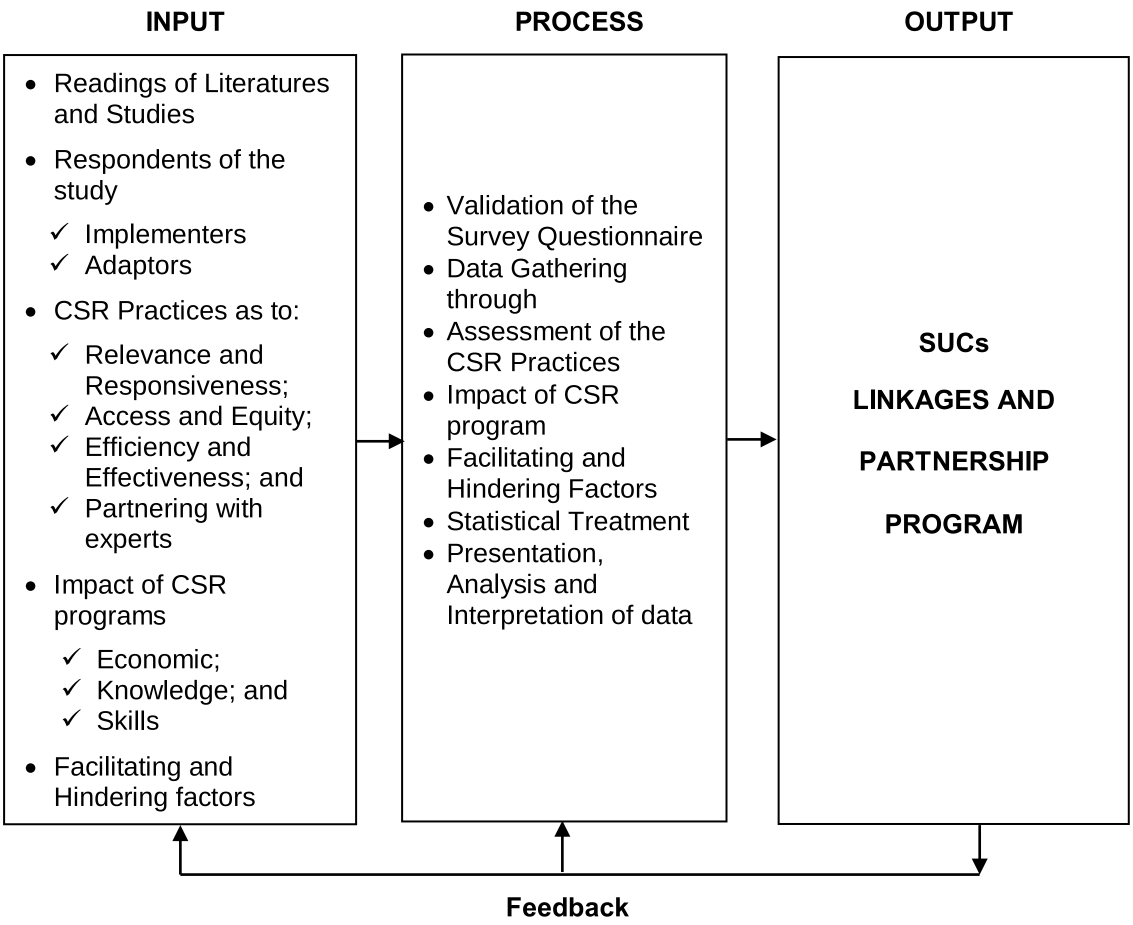

Figure 1. Conceptual Framework

Objectives of the Study

1. To develop a linkages and partnership in the assessment of the respondents on Corporate Social Responsibility practices of the locator-industries.

2. To develop livelihood projects and trainings for the community.

3. To identify the hindering factors in the implementation of Corporate Social Responsibility practices in the community.

4. To implement the linkages and partnership of the different locator-industries.

Significance of the Study

The study has significant contribution to the State Universities and Colleges (SUCs). It is thru this study SUC can build partnership and linkages to the industry locators in Clark Zone Freeport. The adaptors will serve as input to improve the development and implementation of the CSR programs to be more responsive to the needs of the community. Implementers will give an insight to determine the extension and community program/project that each school will have to conduct. The result of the study would inspire the employees to initiate their own assessment of the best corporate social responsibility practices of their companies. The result can be a basis on how they can help to improve the gray areas in the implementation of CSR programs of the company. Researcher will open the door for EARIST for partnership and linkages for the school extension and community projects.

RELATED LITERATURE

Corporate Social Responsibility has become a pervasive topic in the business literature, but has largely neglected the role of institutions. In the article entitled, "Corporate Social Responsibility and Institutional Theory: New Perspective on Private Governance examines the potential contributions of institutional theory to understanding Corporate Social Responsibility as a mode of governance. This perspective suggests going beyond grounding Corporate Social Responsibility in the voluntary behavior of companies, and understanding the larger historical and political determinants of whether and in what forms corporations take on social responsibilities.

Meanwhile, Corporate Social Responsibility is more tightly linked to formal institutions of stakeholders' participation or state intervention in other advanced economies. The tension between business-driven and multi stakeholder forms of Corporate Social Responsibility extend to the transnational level where the form and meaning of Corporate Social Responsibility remained highly contested.

Corporate Social Responsibility research and practice thus rest on a basic paradox between a liberal notion of voluntary engagement and a contrary implication path to explore how the boundaries between business and society are constructed in different ways and improve the understanding of the effectiveness of Corporate Social Responsibility within the wider institutional field of economic governance (1).

Maximiano (5) cited that corporate responsibility extends to corporate stewardship of the environment, one of the triple bottom line (economic, social and environmental). In the course of doing business, corporations have an impact on wide spectrum of stakeholders, the environment is included, in a variety of ways. The business has enormous responsibility to ensure that the activities and the behaviour of business are conducted with utmost integrity.

While business strives to maximize wealth they should not ignore their responsibility to the physical environment, the renewability of resources and the consequences of haphazard industrialization.

According to Sibal (6), the trend under globalization is the weakening of the state as a result of privatization in and further strengthening of private multinational corporations. Citizens are at a loss since the state is no longer in the strong position to protect them. Added to this is the weakening of the formal sector of the world's economies as a result of global of job and contractualization. Hence, workers and citizens' organization (called the civil society) are becoming more vigilant and suspicious in the growing private enterprises.

According to management expert Lim (12) management has three responsibilities: to make profit; satisfy employees; and be socially responsible. Moreover, capitalization and ownership of corporations are becoming more diverse and the controlling owners and operating managers realize fully that their loyalty should first and foremost be with the public in general. In the strict sense, corporations are no longer a "private property". Two surveys conducted by Credit Lyonnais Hong Kong and U.S. Securities and Exchange Commission revealed that investors are willing to pay 12 percent to 30 percent premium on corporations practicing good corporate governance. The Credit Lyonnais survey further showed that these corporations have yielded higher return on capital at 33.8 percent.

Sibal (23) enumerated the components of CSR:

- **Participate Corporate Governance**

Corporate governance is concerned with the manner an organization is managed, or the degree of democratic or participative processes in the management of an enterprise. It refers to the relationships among the company's policy makers and operating managers with its various stakeholders especially the employees. Corporate governance is concerned with the direction and control that a company takes. It is about transparency, accountability and employee involvement in decision making. It also refers to the accuracy and fairness of management decisions which should be subjected to participative processes, checks and balances and monitoring.

Incidentally, there are various mechanisms for employee participation in decision making that can be instituted to ensure that operating managers act in the best interest of the company and its stakeholders.

For instance, researchers show that sound corporate governance is positively linked with the financial success of enterprises. While the interest of the various stakeholders of a corporate entity may be in conflict with one another, if taken from a wholistic perspective, there are more things that should unite them to be able to successfully accomplish the organization's goals. Corporate governance is a mechanism and does not promote division among the various stakeholders. This is very true with management and their employees.

There are at least two reasons why management and labor should become partners in the decision making process. First is that they can check and control each other for the benefit and interest of the other stakeholders. Second is that if ever there are problems were partially caused by both management and labor. Hence, both of them are in the best position to find solutions and solve these problems for survival and growth of the enterprise.

In the Philippines, the more participative form of corporate governance is practiced mostly in big enterprises. The dominant form of governance in the country is a paternalistic, enterprise-based unilateral decision making process practice in micro, small and medium sized companies. In 2003, these enterprises accounted for more than 99 percent of all business establishments in the Philippines and employed 68 percent of the recorded employment.

In the rural areas and in the informal sector, the prevalent workplace relationships are a combination of the peasant-lord (feudal), primitive market and small manufacturing. Land-based elite political families control both the political and business institutions.

The country's formal sector is dominated by private and state enterprises run by elite groups of bureaucrats, politicians and businessmen. The IR system in big enterprises is characterized by enterprise bargaining and reinforced by tripartism where the state is the most dominant actor.

In other enterprises in the formal sector, the Japanese influenced consultative mechanism is slowly being incorporated in the unilateral decision making type of corporate governance. Collective negotiations are practiced in the public sector and various labor-management cooperation mechanisms are incorporated in the essentially top-down, paternalistic management style in the sector.

- **Strategic Planning Management**

Strategic management defines the long term directions of the business organization through its vision, values, missions and strategies. It involves environmental scanning, strategic formulation, strategy implementation and evaluation and control. It emphasizes assessment of strengths and weakness and the monitoring and evaluation of environmental opportunities and threats.

Strategic management is a managerial process of formulating strategic vision, values, missions, strategies, goals and objectives, implementing the strategic and tactical plans, evaluating accomplishments and initiating the needed corrective measures.

Several factors affect the choice of strategies. The interplay of these factors will vary from one situation to another. Management needs to study the external and internal factors that affect the strategy formulation process. Organizations operate a bigger environment. The economic and political environs as expressed in laws, rules, government policies and regulations are critical in the formulation and reformulation of strategies. Likewise, social-cultural factors like ethical standards, societal norms and environmental concerns can limit the strategic actions of enterprises and organizations. The external and internal factors that shape the choice of a corporate strategy include the following:

1. Gives the organization direction as the vision, mission and goals of the organization are clear to members.

2. Makes the members aware of new opportunities and threats and can therefore plan accordingly.

3. Helps unite the organization.

4. Creates proactive management measures.

5. Encourages leaders of the organization to monitor, review evaluate actions that can lead to better results.

In the Philippines, among the foremost social reformers include Isabelo de los Reyes, Lope K. Santos and Herminigildo Cruz. In 1902, they organized Union Obrera Democratica, a labor federation of various trade unions and gemios (local guilds and community organizations). The labor federation pressured foreign and local enterprises to improve the lot of Filipino workers while providing community social services (6).

Mirvis (14) as published in California Management Review studied the relevance of Corporate Social Responsibility for engaging employees, including its impact on their motivation, identify and sense of meaning and purpose. The study showed three different ways, namely: transactional approach, relational approach and developmental approach. The transactional approach was based on the programs undertaken to meet the needs of employees who want to take part in the Corporate Social Responsibility efforts of a company. The relational approach was more on psychological contract that emphasizes social responsibility. Lastly, the developmental approach was more on aiming to activate social responsibility in a company and to develop its employees to be responsible corporate citizens.

Pollach (19) examined the integration of Corporate Social Responsibility into corporate communication in large European companies. They found out that Corporate Social Responsibility was frequently managed by the Corporate Social Responsibility departments and by communication departments at a small extent. Communication departments frequently engaged in cooperation with the Corporate Social Responsibility departments. The more frequently they cooperated, the more likely they have a formalized cooperation. The authors also concluded that communication departments were generally aligned to strategic management of the organization, which was not the case for the Corporate Social Responsibility departments.

Synthesis of the Study

The materials provided information that highlights the need for the business enterprise to be socially responsible. Foreign literature enumerates the CSR's components, which include the economic performance, legal, ethical and philanthropic. The work of Hartman (3), Crane (2), Calderon (1), disclosed the profile and characteristics of a socially responsible companies from the point of view of different stakeholders and the public.

The concepts of Mostovics (16) and Parast (18) emphasized the pillars of CSR, how to maximize returns, and the importance of outcomes measurement of CSR programs among the firms.

Maximiano (5) extended such responsibility of business to environment or what he called environmental stewardship.

The foreign studies revealed that the CSR practice of various businesses in European countries. Here, CSR was frequently managed by the CSR departments and communication department. The author (19) concluded that communication departments were generally aligned to strategic management of the organization.

On the local note, Sibal's (6) CSR book has further discussed and enlighten the proponents on the various concepts and theories on CSR and presented position both government and private sectors need to undertake worthy causes for a good cause. Of course, the role of the League of Corporate Foundations, Sibal (23) in helping the corporate responsiveness of the MNCs.

METHOD OF RESEARCH

This study used the descriptive research. It is a design to gather information that may lead to determine the corporate social responsibility practices of selected locator-industries, and facilitating and hindering factors for which the researcher sought to provide linkages and partnership for SUC's.

Research Design

Descriptive research is the most appropriate method since this presents and provides systematic and factual information to assess and evaluate the present and existing condition of the variables being investigated.

This involves gathering of data, analysis, interpretation to answer postulated problem. It allows the qualitative and quantitative description of the impact of corporate social responsibilities program and facilitating and hindering factors.

It is also correlational since it is used to evaluate the extent of relationship between the corporate social responsibilities practices and impact of corporate social responsibilities.

Sample and Procedure

Table 1

Distribution of the Respondents from Selected Locator Industries

Respondents	Population	Sample	Percentage
Implementers	42	40	95
Adaptors	42	40	95
Total	**84**	**80**	

There were two groups of respondents involved in the study, implementer and adaptor respondents. Implementers and Adaptors respondents with 40 or 95 percent out of 42 respondents were the subject of the study.

Convenience sampling was used to select the locators' and the respondents of the study. The researcher gathered the list of all locators' from Clark Development Corporation. The list were sorted and classified to industry's they belonged. Top five (5) locators' per industry were selected as the target companies. In cases were the said locators' refused to participate for some reason, the next in the rank in the same industry served as replacement. With regards to the target companies, the research has made one general assumption that these companies most likely were already implementing corporate social responsibility practices and values. Therefore, information and opinions coming from its officers and/or staff were considered essential as far as corporate social responsibility issues and surely provide baseline of opinions of those company leaders implementing corporate social responsibility philosophies and concepts.

Data Gathering Procedures

The researcher drafted the survey questionnaire and submitted to the adviser for comments, suggestions and recommendations. Prepared the final copy of the survey questionnaire with due consideration to the suggestions given. Requested permission from the Office of the Human Resource Management of the selected locator industries to conduct the study. Distributed the questionnaires personally to the implementer and adaptor respondents. Retrieved, collected, tallied and tabulated the data gathered. Submitted the data for statistical treatment.

Proposed SUCs Linkages and Partnership for Corporate Social Responsibility

Rationale: To identify companies for partnership and linkages by the SUCs

No.	Areas	Proposed Community Development Plan	Industry Category	SUCs/Department Involved
1.	Advocacy Agenda	Health Wellness	APDI Health Services, CRL Environmental Corporation	All Colleges
2. 3.	Livelihood projects Trainings for the community.	Entrepreneurship Handicraft	Clark Interiors, Inc., PSMC Philippines, Inc., Alpha Aviation Group (Philippines), Inc.	College of Industrial Technology College of Business Administration College of Hospitality Management College of Teachers Education
4.	Network equipment, kiosks, or small mobile services.	Appliance and server virtualization.	NCO Philippines, S-Corp Philippines, Inc.	College of Engineering College of Industrial Technology College of Arts and Sciences
5. 6. 7.	Fast-paced processes. Corporate cause and involvement Awareness of a good corporate citizen.	Process Development	Sutherland Global Services Philippines	College of Education College of Business Administration
9.	Product innovation, Development	Product Development	Amerton, Inc., Phoenix Semiconductor, Inc. Industrial	College of Business Administration College of Architecture and Fine Arts College of Hospitality Management College of Industrial Technology
10.	Jobs	Construction labor jobs	Dongwang Clark Corporation, PTT Philippines Trading Corporation	College of Industrial Technology College of Business Administration College of Hospitality Management
11.	Nutritional and relief assistance	Disaster volunteer activities. Psychological care.	Cyber City Teleservices, L.T.D., CCIS Educational Foundation, Inc.	College of Hospitality Management College of Industrial Technology
12.	Support	CSR support to the organization.	Australian International Training and Management	All Colleges
13.	Budgeting	15 million and above	Global Gateway Development Corporation	All Colleges

Statistical Treatment of Data

The data gathered were compiled, collated and summarized separately per group. The responses for each item were categorized based on the specific problems raised. The following were utilized in the treatment of the data:

1. Percentage. This was used as descriptive statistics or something that describes a part of the whole.

2. Frequency. It is the actual response to a specific item/question in the questionnaire where the respondent ticks his choice.

3. Weighted Mean. This was used to measure the respondents' assessments. Multiplying each value in the group by the appropriate weighted factor and the product were summed up and divided by the total number of respondents.

Formula: $$WM = \frac{\sum_{i=1}^{n} f_i x_i}{N}$$

The following scales were utilized to determine the corporate social responsibility practices by industry-locators as assessed by the respondents.

Option	Equivalent	Verbal Interpretation	Symbol
5	4.20 – 5.00	Highly Practiced	HP
4	3.40 – 4.19	Practiced	P
3	2.60 – 3.39	Moderately Practiced	MP
2	1.80 – 2.59	Least Practiced	LP
1	1.00 – 1.79	Not Practiced	NP

To determine the impact of CSR to the adaptors and the facilitating and hindering. The Likert's scale:

Option	Equivalent	Verbal Interpretation	Symbol
5	4.20 – 5.00	Strongly Agree	SA
4	3.40 – 4.19	Agree	A
3	2.60 – 3.39	Moderately Agree	MA
2	1.80 – 2.59	Least Agree	LA
1	1.00 – 1.79	Disagree	D

4. t–Test of Significant Difference between two Means used to determine whether or not significant difference exist between the perceptions of the respondents. It will be solved using formula (Garcia 2004).

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{s_1^{\,2}}{n_1} + \frac{s_1^{\,2}}{n_2}}}$$

where:

$\bar{X}_1$ = mean of the 1st group

$\bar{X}_2$ = mean of the 2nd group

s_1^2 = standard deviation of the 1st group squared

s_1^2 = standard deviation of the 2nd group squared

n_1 = sample size (1st group)

n_2 = sample size (2nd group)

5. Pearson Correlation r. used to determine whether or not significant relationship exist between the assessments of the respondents. It was solved using the formula: (Garcia 2004).

$$r = \frac{N\,(\sum xy) - (\sum x)(\sum y)}{\sqrt{[N\,(\sum x^2) - (\sum x^2)][N\,(\sum y^2) - (\sum y^2)]}}$$

where:

$\sum xy$ = summation of the product x & y
$\sum x$ = summation of x
$\sum y$ = summation of y
$\sum x^2$ = summation of the source of x
$\sum y^2$ = summation of the source of y
N = no. of Districts/variable
r = Pearson Product Moment Correlation

To determine the significance of r, the t-test was used with the following formula:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

Guide in interpreting coefficient of correlation

+1	-	Perfect correlation.
±0.91 to ±0.99	-	Very high Correlation, very dependable relationship.
±0.71 to±0.90	-	High Correlation, marked relationship.
±0.41 to±0.70	-	Moderate Correlation, substantial relationship.
±0.21 to ±0.40	-	Slight Correlation, but small relationship.
±0.01 to ±0.20	-	Slight Correlation, almost negligible relationship.
0	-	No correlation

RESULT AND ANALYSIS

Requirement Analysis

The summary on respondents' assessment on the Corporate Social Responsibilities Practices of the locator-industries as assessed by the implementers and adaptors is manifested in Table 2.

Table 2

Summary on Respondents Assessment on the Corporate Social Responsibilities Practices

Criteria	Implementers		Adaptors		Composite Mean		Rank
	WM	VI	WM	VI	WM	VI	
1. Relevance and Responsiveness	3.54	P	3.73	P	3.67	P	3
2. Access and Equity	3.69	P	3.75	P	3.65	P	4
3. Efficiency and Effectiveness	3.98	P	3.74	P	3.86	P	1
4. Partnering with Experts	3.72	P	3.72	P	3.72	P	2
Overall Weighted Mean	**3.73**	**P**	**3.74**	**P**	**3.73**	**P**	

It can be depicted in the data, that all variables were assessed as very practiced: Efficiency and Effectiveness (WM = 3.86) rank 1; partnering with experts (WM = 3.72) rank 2; relevance and responsive (WM = 3.67) rank 3 and rank 4 is access and equity (WM = 3.65). Lastly, the respondents as practiced on the corporate social responsibilities practice assessed the computer overall weighted mean of 3.73.

User Design

Table 3

Summary of Significant Difference on the Corporate Social Responsibilities Practices

Criteria	Implementers		Adaptors		t-Test		
	WM	SD	WM	SD	t-value	Dec.	VI
1. Relevance and Responsiveness	3.54	0.83	3.73	0.91	0.98	NS	Accept Ho
2. Access and Equity	3.69	0.89	3.75	0.84	0.31	NS	Accept Ho
3. Efficiency and Effectiveness	3.98	0.78	3.74	0.81	1.35	NS	Accept Ho
4. Partnering with Experts.	3.72	0.80	3.72	0.74	0.00	NS	Accept Ho
	3.73	**0.83**	**3.74**	**0.83**			

Table 3 presents the summary of significant difference on the corporate social responsibilities practices of the respondents.

As presented in the table, all variables intercepted as not significant: relevance and responsiveness (t-value = 0.98); access and equity (t=0.31); efficiency and effectiveness (t = 1.35); and partnering with experts (t =0.00) are fell below the critical values of 1.645 at 5 percent level of significance with a 78 degrees of freedom, hence the hypothesis that there is no significant difference between the assessment of respondents on corporate social responsibilities is accepted.

Data Interpretation

Table 4 shows the significant relationship among the impact of corporate social responsibilities program to the adaptors.

Table 4

Significant Relationship Among the Impact of Corporate Social Responsibilities Program

Variables	r-value	t-test value	Decision	Interpretation
Economic vs. Knowledge	-0.18	1.62	Accept Ho	Not Significance
Economic vs. Skill	0.20	1.80	Reject Ho	Significance
Knowledge vs. Skills	0.15	1.34	Accept Ho	Significance

df=78 cv at 5% = 1.645

As shown in the table, the computer r-value of -0.18 with a t-test value of 1.62 which is lower than the critical value of 1.645 at 5 percent level of significance, with 78 degrees of freedom, hence we accept the hypothesis that there is no significant relationship between economic and knowledge of the respondents since the interpretation is negative slight correlation, almost negligible relationship between the impact of corporate social responsibilities program to adaptors.

On the other hand, the relationship between economic and skill have a computer r-value of 0.20 with t-test of 1.80 higher than the critical value of 1.645 at 5 percent level of significance with a 78 degrees of freedom hence we reject the hypothesis that there is a significant difference between the economic and skill of the respondents, but there is a positive correlation, almost negligible relationship.

Moreover, the relationship between knowledge and skills has a computer r- value of 0.15 at positive correlation, almost negligible relationship with t-value of 1.34, below the critical value of 1.645 with 78 degrees of freedom; hence we accept the hypothesis that there is no significant difference in the assessments of respondents on knowledge and skills of the respondents.

Table 5

Assessment on the Facilitating Factors Experienced by the Respondents

Criteria	Implementers		Adaptors		Composite Mean		Rank
	WM	**VI**	**WM**	**VI**	**WM**	**VI**	
1. Engage the poor in the livelihood activity project.	4.08	A	4.15	A	4.12	A	5
2. Obey the policies and regulations.	4.12	A	4.43	SA	4.28	SA	3
3. Conform to legal laws.	4.35	SA	4.33	SA	4.34	SA	2
4. Allotted enough budgets for CSR programs.	3.95	A	4.25	SA	4.10	A	6
5. Respected adaptor rights.	4.43	SA	4.50	SA	4.47	SA	1
6. Sponsor programs to alleviate poverty.	3.98	A	4.28	SA	4.13	A	4
7. Listen to the concern of beneficiaries	4.03	A	4.05	A	4.04	A	7
Composite Weighted Mean	**4.13**	**A**	**4.28**	**SA**	**4.21**	**SA**	

Legend:

5	Strongly Agree	(SA)	4.20 – 5.00
4	Agree	(A)	3.40 – 4.19
3	Moderately Agree	(MA)	2.60 – 3.39
2	Least Agree	(LA)	1.80 - 2.59
1	Disagree	(DA)	1.00 - 1.79

Table 5 reveals in the table, the criteria assessed by the implementers and adaptors as follows. These are: Respected adaptor rights (WM= 4.47), rank 1; conform to legal laws (WM= 4.34), rank 2; Obey the policies and regulations (WM=4.28), rank 3; Sponsor programs to alleviate poverty (WM=4.13), rank 4; Engage the poor in the livelihood activity project (WM= 4.12), rank 5; allotted enough budget for CSR programs (WM= 4.10), rank 6; Listen to the concern of beneficiaries (WM= 4.04), rank 7. This was supported by a composite mean value of 4.21 interpreted as strongly agree.

Table 6 depicts the Respondents Assessment on the Hindering Factors Experienced by the Respondents.

Table 6

Assessment on the Hindering Factors Experienced by the Respondents

Criteria	Implementers		Adaptors		Composite Mean		Rank
	WM	VI	WM	VI	WM	VI	
1. No support from the top management.	3.68	A	3.75	A	3.72	A	6.5
2. Absence of ethical and legal grounds.	3.78	A	4.38	SA	4.08	A	1
3. Look of awareness about CSR among the general public to make CSR initiative more effective.	3.68	A	4.13	A	3.91	A	3.5
4. No effective partnership between private sector, employees, local, communities, government, and society in general.	3.83	A	3.98	A	3.91	A	3.5
5. Lack of budget for the implementation of CSR programs.	3.80	A	3.75	A	3.78	A	5
6. Employees are not interested to participate.	3.85	A	4.00	A	3.93	A	2
7. Lack of awareness on becoming a good corporate citizen.	3.70	A	3.73	A	3.72	A	6.5
Composite Weighted Mean	**3.22**	**A**	**3.96**	**A**	**3.86**	**A**	

As depicted in the table, Absence of ethical and legal grounds (WM= 4.08), rank 1; employees are not interested to participate (WM= 3.93), rank 2; Look of awareness about CSR among the general public to make CSR initiative more effective (WM= 3.91), rank 3.5; No effective partnership between private sector, employees, local, communities, government, and society in general (WM= 3.91), rank 3.5; Lack of budget for the implementation of CSR programs (WM= 3.78), rank 5; No support from the top management (WM= 3.72), rank 6.5; Lack of awareness on becoming a good corporate citizen (WM= 3.72), rank 6.5.

As a whole, the Respondents Assessment on the Hindering Factors Experienced by the Respondents as to evaluation assessed as agree with a composite mean of 3.86.

CONCLUSION AND RECOMMENDATION

Conclusions

Based on the findings of the study, the following conclusions were drawn:

1. Currently, the respondent's assessed that the locator industries are efficient and effectively practicing the corporate social responsibility.

2. No significant difference exists in assessment of two groups of respondents in relevance and responsiveness, access and equity, efficiency and effectiveness and partnering with experts since the null hypothesis is accepted.

3. Significant variances exist in the impact of corporate social responsibility in economic, knowledge and skills since the r-values obtained are not in the rejection region, hence, null is rejected.

4. In the issues and concerns in the relationship between the impact of corporate social responsibilities to economics, knowledge and skills to the adaptors the null hypothesis is accepted.

5. The respondent's rated that there is no support from the top management and lack of budget in the implementation of CSR as the highest rank in the hindering factors to have been pursued and give full attention.

6. A proposed SUCs linkages and partnership with the Corporate Social Responsibility Program of the locator-industries will positively contribute to the communities to operate and conducts business.

Recommendations

In the light of the findings and conclusions, the following recommendations are hereby presented:

1. To carry out more effectively and efficiently the company's CSR, the Management should use proactive approaches, especially focusing on CSR programs and projects that will focus on people, education, socio-economic and technological needs so as to make these corporate initiatives their living testimony to its Corporate's commitment to excellence and quality public service.

2. The company should hasten and sustain its existing CSR programs and projects; and meet the challenges of major dimensions of the CSR, namely: relevance and responsiveness, access and equity, efficiency and effectiveness and partnering with experts to improve the quality of life of the people and a difference in its efforts to contribute to nation-building.

3. The company should put more meaning to its CSR so it can give back and share the fruits of its success with the society that made the success possible. It can also showcase its responsible corporate citizenship by getting involved in the country's poverty alleviation, skills and training program though enhanced education programs and projects, addressing the basic needs of the community.

4. Increase the level of awareness of the employees, suppliers, community and customer on current laws and human rights protection through dissemination.

5. Allocate more funds or financial resources to corporate social responsibility programs of the company yearly to maintain its sustainability.

6. Establish a partnership between the locator industries and the community in the development and implementation of community development program.

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