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# A COMPARATIVE STUDY: JUSTICE SYSTEM OF JAPAN VS. SADANGA'S INDIGENOUS DISPUTE RESOLUTION AS MODEL IN MEDIATION PROCESS

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## ABSTRACT

**This research examined the similarities and differences of Japan's Justice System and Sadanga's Indigenous Dispute Resolution mechanisms as processes in resolving conflicts. Descriptive research was used to compare the similarities and differences. Results of the study revealed that Japan and Sadanga are similar in their restorative features and values of rehabilitation and co-existence. The restorative features of Japan's justice system can be derived from their use of apology, confession, reintegrative shaming, and compensation. Sadanga's mechanisms are rakaw, paranga, sapata, and pechen. In setting the differences apart between the two systems, the researcher categorized them in terms of their applicability in 1) rectifying the crime committed, 2) leniency of punishment, and 3) rehabilitation of offenders. The main goal of Japan's justice system is rehabilitation. It is available throughout every stage of their criminal justice process. They have mechanisms in place like bizai shobun which allows the police to release criminal suspects but not without ensuring that they undergo rehabilitation. Japanese prosecutors focus on rehabilitation when they recommend suspended or summary prosecution. Sadanga's indigenous dispute resolution mechanisms, although rehabilitative too, impose punishments to teach a lesson for offenders not to re-offend. Evidently, the need for proper or formal rehabilitative mechanism should be considered.**

*Keywords: pechen, sapata, reintegrative, rehabilitative, shaming*

## INTRODUCTION

Restorative Justice (RJ) is a generic term that covers all informal methods used in resolving conflicts. According to Ragandang, P. C. (2018), the common RJ being utilized in the social community are face-to-face, conferencing, victim-offender mediation, family circle, and mediation. Restorative Justice is more effective than courts, particularly in countries where the judiciary is corrupt. It is less costly, more responsive to the poor, more culturally appropriate and promotes greater social harmony. RJ is effective and more responsive because it is designed to seek and balance the needs of the victim, offender and community as it lets them answer what happened, why it happened and what are the harms that need to be addressed (Watson, T., 2016).

The effectivity of restorative justice is not only observed in the community but also acknowledged by the legal courts. The integration and assimilation of indigenous dispute resolution in the mainstream of the formal legal court structure of the Philippines is crystallized in the creation of the Katarungang Pambarangay (KP). In 2001, the Supreme Court established the Philippine Mediation Center (PMC) designating the Philippine Judicial Academy (PHILJA) as its administrative arm to lead Court-Annex Mediations (CAM) which was founded in 1991 by Tadiar. Japan's criminal court is fundamentally a place to plead for clemency, not to argue a person's guilt or innocence because plea bargaining is replaced into confession (Ramseyer, M. and Rasmusen, E., 2018; David, A. and Chiyomi, S., 2002).

In Sadanga, Mountain Province, Philippines where various conflicts often egress, restorative justice is widely practiced through the embodiment of their Indigenous Dispute Resolution (IDR) which was conceptualized during early

days of settlement and is still being observed at present despite the advent of Christianity and intervention of western criminal justice. This IDR is an institution of peace that covers all measures being used by the Sadanga tribes in controlling all forms of crimes including abuses. It has four processes locally termed as *paranga, rakaw, sapata* and *pechen* which are geared at conflict reparation between two individual persons or communities. *Paranga* means reconciliation, *rakaw* means penalty, *sapata* means an oath, and *pechen* means peace pact. To improve and promote them as one model of mediation, the researcher compared them with the restorative justice of Japan which has pillars of shameing, compensation, and apology at the community level (David, A. and Chiyomi, S., 2002). Its components being used in their Criminal Justice System (CJS) are confession, restitution, apology and leniency (Parker, A., 2016; Parker, L., 2009). The Restorative Justice of Japan was legalized and has been considered partner of their CJS in maintaining low crime rate as recorded by the National Statistics Research Department (https://www.statista.com).

Promotion of peace and order should not rely on the monotony of a set of rules but should also emphasize the use of practical methods maintaining peace and harmony available to man. Indeed, there are practical methods to resolve crimes but were not put into writing. It is for this compelling reason that the researcher laid down the groundwork in analyzing the practical methods of conflict resolution as they are utilized in promoting peace and order so that they can be fully recognized by authorities and be integrated in the legal procedures.

**Related Literature**

Restorative Justice seeks to balance the needs of the victim, offender and community as it repairs the harm caused by delinquent persons (Watson, T., 2016; Pagandiyan and Jester, 2019). According to Wachtel, T. (2016) the purpose of Restorative Justice is to heal, repair and find a positive way forward by confining and controlling the escalation of crime that may psychologically, physically and economically disrupt both affected parties including the community. He further posited that in order for RJ to find positive ways toward resolving crime, it should be concertedly and collectively decided by all parties involved. Thus, by these accounts, a social deliberation is needed to help the criminal justice system dispense a quality of justice.

Restorative Justice has varied procedures in processing justice. One is victim-offender mediation (https://law.jrank.org) which is primarily "dialogue driven". It lets the victim and offender meet in a safe place with an emphasis to heal the victim and hold the offender accountable for his wrong deed as he will restore all victim's losses. This process is more humanistic as it builds strong rapport and trust between two parties directly involved in the crime including other people present during the mediation. The second process is sentencing circles which sets the mediation by leading the victim/s, offender/s, friends and members of the community to attend it. It aims for them to draw holistic healing. However, before it draws holistic healing, it must work in conjunct with formal legal processes. It lets them develop sentencing plans while at the same time to addressing the causes of crimes and problems. The third process of restorative justice is circle. It is similar to sentencing circle and was developed in Yukon, Saskatchewan, and Manitoba. At present it is occasionally being used in the United States where Navajo peace making courts exist (https://www.justice&reconciliation). This process is proactive as it lets the whole people in the community have opportunity to speak in settling juvenile and adult cases solely to patch up and restore once lost relationship.

Haley, J. (1996) wrote that Japan's law enforcement had fully incorporated restorative justice in the structure of their functions. RJ is considered a second track that provides justice to the people. It aims to rehabilitate or reintegrate the offender into society but he/she must confess, apologise and compensate the victim so that the prosecutor may seek leniency from the court.

In the Philippines, mediation is the most common restorative justice offered. It is everywhere found in the communities of indigenous people. It is fast and effective in mediating cases especially in small villages with lesser number of people and it is humored because it is mediated by a trusted person who has the credibility to understand the root cause of the conflict.

In the Cordilleras, various peace-making processes are popular among its indigenous population. The Kalinga people practice the *Bodong* System, a political institution that facilitates the resolution of inter-tribal or inter-regional conflicts among them as indigenous people. In Ifugao, they employ different means of conflict resolution depending on the nature of conflict but they have "go-between" named as mankalun who is tasked to carry out negotiations (Ragandang, P., 2018). The *mankalun* has the same task and qualification

as that of a mediator. The Tinggians of Upper Abra have a customarily law called *sapata*. This is a ritual designed to trace an accused person after the –all-male council of elders had exerted all their efforts in tracing the criminal yet to no avail. The *sapata* is performed as a punishment for the criminal who remains in hiding. In Benguet, they have a customary practice called *tongtongan* where elders give their advices to the both conflicting parties after knowing the root cause of their dispute. In Sadanga, Mountain Province, they have various indigenous practices that primarily evolved from their resolution of boundary disputes and had ever since made them strong as a tribe (Manengyao, 2018; Yassan, 2010).

## Conceptual Framework

The study was theoretically anchored on the United Nations' Basic Principles on the Use of Restorative Justice Programs in Criminal Matters (2002). The practice of restorative justice processes should follow procedural safeguards to ensure that the victim and offender are given fair treatments. The Basic Principles lay down basic safeguards available to offenders and victims alike, such as the right to be informed of their rights, to refuse participation in any restorative process, and to be knowledgeable of the procedures and outcomes of their decisions. To be effective, the participation of the parties in any restorative process must be voluntary in nature. They should know that they can back out any time. Neither victim nor offender should be coerced or induced by unfair means to participate or accept restorative outcomes. It should also be made clear that an offender's participation would not, in any way, be used as evidence of guilt in subsequent proceedings. The Basic Principles further underscore that agreements and decisions resulting from restorative processes must have judicial supervision and should be regarded as any other judicial judgement or decision because, as stipulated in Principles 18 and 19, facilitators in any restorative processes are expected to be impartial and possess a good understanding of the local cultures and communities. As such, they should be able to generate solutions that are proportionate, reasonable and agreed by all. Principle 14 also qualifies that discussions that are not conducted in public must remain confidential and should not be disclosed in subsequent proceedings, except when both parties consent to and national laws compel its disclosure.

Moreover, the Basic Principles recommend that guidelines and standards on the use of restorative justice should be developed and include provisions about referral conditions and the handling of cases, the skills and training of facilitators, the administration of restorative justice and rules of conduct relating to how restorative programs operate. Such standards are important to ensure high quality of practice and promote equal access to service.

The study was also conceptually anchored on the theory of benchmarking. Through benchmarking on the RJ of another country, the researcher gathered additional inputs which will definitely lead to the harmonization of locally practiced restorative justice. It is through benchmarking that new models of dispute resolution can be developed in order to better address various cases as no one monopolizes the framework of RJ.

## Statement of the Problem

This academic study is focused on the analysis on how the two distinct settings (Sadanga, Philippines and Japan) process indigenous dispute resolution from minor to serious cases, whether criminal or civil case, and the promotion of peace and order. Specifically, this study sought to answer the following specific problems:

1. What are the points of similarity between Japan's restorative justice system and Sadanga's Indigenous Dispute Resolution mechanisms?
2. What are the differences between Japan's restorative justice system and the Indigenous Dispute Resolution mechanisms of Sadanga in terms of:
   a. rectification of crime?
   b. leniency of punishment? and
   c. rehabilitation of offenders?

## METHODOLOGY

### Research Design

The qualitative research design was used in this study where primary and secondary sources were used extensively. Since the focus of the study is to explore the similarities and differences of Japan's justice system and the Indigenous Dispute Resolution of Sadanga, the researcher used qualitative approach, which includes different modes of collecting data. Primary data were collected through observation, informal discussion, and semi-structured interview; while research findings, online journal articles, and other references were used as secondary sources.

### Limitation of the Study

The study was limited to the comparison of Japan's justice system and Indigenous Dispute Resolution mechanisms of Sadanga. The comparison was limited to the similarities and differences of the processes involved in resolving conflicts.

### Data Gathering Procedure

The participative observation method was used as the researcher witnessed some of the actual practices within the local of the study. It was supplemented with interviews from the five selected elders of Sadanga. They were chosen as participants of this study because of their expertise and deep knowledge on the subject matter formed by years of experience and actual involvement in resolving conflicts.

Prior informed consent was sought from the participants before any observation and interviews were conducted. Interview guide was prepared to facilitate gathering of information. In doing so, the researcher made sure that no local traditions were compromised. Articles and journal entries found online also served as other sources of information and data.

### Treatment of Data

After collecting data from the participants, thematic analysis was used to cull out the similarities and differences found in the restorative justice systems of Sadanga, Philippines and Japan.

### DISCUSSION

**Similarities between Japan's justice system and the Indigenous Dispute Resolution mechanisms of Sadanga**

1. **Restorative Features**

Japan's justice system has four distinct components. ***Sumimasen***, which literally means "sorry" or "excuse me", is the most common way to make an apology. It is helpful in resolving minor conflicts. This is the Japanese medium to convey humility, kindness and gratitude on certain social gatherings; while it can be used as self-defense to avoid further trouble. **Compensation** is another component which is used to repair harm, especially in more serious cases. **Confession** is when all facts of the incident are told by the offender; and **reintagrative shaming** is used as a compelling force to let the offender accept responsibility (Gilbert, D., 2018). Japan's informal justice system is greatly defined by the processes of apology, forgiveness, and restitution. An offender may avoid the courts altogether if he/she apologizes and shows remorse for his/her wrongdoings. Such is the emphasis that the Japanese put on apology and forgiveness that their restorative justice has gained the admiration of many practitioners around the world (Parker, L., 2009).

The Indigenous Dispute Resolution mechanism of Sadanga is based on the Katarungang Pambarangay process but only insofar as the filing of cases in concerned. Depending on the nature and degree of seriousness of the case, the elders follow a slightly different procedure. The mechanism they use has four components that bear similarities with that of Japan's. ***Paranga*** is a means of reconciliation. It can be used to resolve conflicts arising from minor physical injuries and some other serious incidents. If Japan uses apology and forgiveness to reconcile conflicts, *paranga* is used for the same purpose. ***Sapata***, or oath, is a ritual used to call the interventions of nature. It is believed to reveal the true perpetrator not necessarily right away but could be in the near future. *Sapata* is used in the same manner as that which the Japanese use shamefulness. If Japan uses compensation settlement to repair the harm between two parties, the IDR of Sadanga has ***rakaw*** for the same purpose. It is the penalty imposed to repair harm/ damage and could be in the form of property (land), cash, or livestock. The most important component of Sadanga's IDR is the ***pechen***, otherwise known as peace pact. *Pechen* is a sacred ritual done by two conflicting parties to settle the cause of conflict and re-establish peaceful relations. Tribal elders act as mediators until final terms and conditions are reached and agreed upon by both parties (Manengyao, G., 2008). If Japan uses apology in preserving unity and promoting peace and order in wider communities, Sadanga uses *pechen* for the same purpose.

2. **Values**

**Rehabilitative, not punitive**. Based on research, it can be concluded that Japan's justice system is more focused on rehabilitating both the victim and the offender than punishing them. It has even been described as "authority without power" due to the fact that police and prosecutors often exercise considerable discretion and leniency (Haley, J., 1991). Mikio's (2020) observation seems to encourage this statement as he noted that a greater percentage of criminals are apprehended but they don't really get punished because either charges are dropped or they get to pay some kind of compensation. Another scholar pointed out that

Japan's criminal procedure places wide discretionary authority to its prosecutors which means that they can drop cases despite damning evidences enough to get a conviction (Tachi, Y., N.D.). This is viewed to have a significant role in encouraging offender's rehabilitation.

In Sadanga's Indigenous Dispute Resolution mechanism, it could also be observed that their goal is to restore harmonious relationship rather than punish the offender. According to one of the respondents, once they performed the *paranga*, it means the offender is forgiven. The victim will no longer press charges in court nor exact revenge. The process of *paranga* signifies the start of treating other as part of their family. Based on the respondent's personal experience, when he injured his father's enemy, a fierce feud erupted between their families. When the elders intervened, the conflict was processed through *paranga* wherein they exchanged or shared food. As a result, the victim's family withdrew the criminal case against him and until now they have peaceful relationship.

From these accounts, it would be safe to say Japan's restorative justice system and Sadanga's Indigenous Dispute Resolution mechanisms are both rehabilitative which falls within internationally acceptable definition of restorative justice which is a "way of responding to crime, or to other types of wrongdoing, injustice or conflict, that focuses primarily on repairing the damage caused by the wrongful action and restoring the well-being of those involved" (www.unodc.org, 2019).

**Co-existence**. In their study, Suzuki and Otani (2017) quoted Braithwaite's claim that Japan's comparatively low crime rate can be explained by its socio-cultural nature of being "reintegrative due to the influence of Confucianism which places emphasis on harmony among people". The Japanese believe in conforming to social order because it is the only way that harmony can be maintained. It should be noted that in a close-knit community like that of Japan's, making apology and seeking forgiveness often extends to the offender's family and significant others such that they take it upon themselves to take actions for plea for forgiveness and leniency wherever it is necessary (Sakiyama, 2017). In his research, Meres (1998) wrote that inasmuch as conflicts cannot be avoided, the Japanese do not take pleasure in resolving their conflicts in public. As such, legal authorities are compelled to make arrests and prosecute cases only when there are no other alternatives. To this end, Japanese prosecutors are conservative in charging suspects at the risk of not charging a questionable suspect just so to avoid tainting the suspect's reputation.

In Sadanga, they have a practice called Pechen which is used to restore harmonious relationship between two warring tribes. According to Waclin Manolo (tribal elder of Betwagan), a go-between in the person of any government or non-government peace agent initiates the peace pact between the two warring tribes. If both agreed to choose "friendship" over war, the elders of each tribe will select a peace pact holder who is usually a member of the "*ator/ dap-ay*" to which the aggrieved party belongs. The chosen holder of peace from both sides will send each other a *warrang* (token) to signify their willingness to undergo peace pact. Once the exchange of *warrang* is successful, a celebration ensues and is attended by both tribes. During which, the *Pagta* or agreement is ratified and enacted by both parties. Once signed, it becomes effective and will only be amended during the next *pechen* celebration called *Paatong*. The root cause of the conflict is never part of the discussions because the aim of the peace pact is to restore their relationship. If the peace pact holder belongs to the victim's family, it is understood that they had already forgiven their tribal enemy. But in order to "erase" the anger and curses uttered at the onset of the conflict, the *paranga* must be performed. However, if the conflict is attributed to boundary disputes, the territorial jurisdiction of both tribes must first clearly defined to the satisfaction of both because this becomes part of the provisions of the *pechen*.

By analyzing the context of the above-stated accounts, it can be surmised that Japan's justice system and Sadanga's Indigenous Dispute Resolution mechanisms place a high regard on the value of co-existence. The presence of this value in the conflict resolution processes of said locales only gives credence to their effectiveness in concept because at a minimum, restorative justice system must involve, aside from the victim and offender, a facilitator and other stakeholders who have a vested interest in promoting the peace and harmony of the communities to which they belong (Speed, 2019).

**Differences between Japan's Restorative Justice System and the Indigenous Dispute Resolution Mechanisms of Sadanga**

This section presents the differences between Japan's restorative justice system and the Indige-

nous Dispute Resolution mechanisms of Sadanga along rectification of crime; leniency of punishment and rehabilitation of offenders.

**Differences in terms of Rectification of Crime**

Japan's informal social control places high value on apology. Apologizing implies accountability as it is deemed to mean several things when made by an offender, such as admission on fault, undertaking to not repeat the offense, willingness to be reintegrated to society (Sakiyama, M., 2011). The utterance of "*sumimasen*" is what helps resolve conflicts between two parties because when Japanese offenders confess and apologize for their mistakes, the victim has no choice but to accept his apology and forgive him. A person who does not apologize for his mistake is often viewed very negatively as it means that he does not accept his responsibility. Hence, it is customary in Japan to widely forgive someone asking for mercy (Gilbert, D. 2018).

In Sadanga, minor conflicts are inevitable but there are indigenous ways to rectify them. When someone made minor mistakes, these will be processed through the system of family interconnectedness. Compared with the process in Sadanga, settling minor conflicts in Japan seems to be quite a big deal. Being cognizant of one's faults, with the help of the interconnectedness of families, are enough to quiet minor conflicts in Sadanga.

Shaming is embedded in the tradition of Japan. It's a process being used by the community members to compel the accused to accept his responsibility. In contrast, people of Sadanga do not use shaming in repairing conflicts as it is against their culture. However, whenever one obstructs certain norms in the tribe's traditions, an appropriate sanction (*rakaw*) is deliberated by barangay officials which the offender must comply with. According to Saclangan Managtag, shaming a person who did a crime against person and property is not a culture of Sadanga tribes rather to shame a person who obstruct certain norms of the tribes, the barangay officials will deliberate the *Rakaw*.

**Differences in terms of Leniency of Punishment**

Apology is a process that by itself can settle minor physical injuries (Kashimora, S., 2011). The offender only needs to be sincere about it. In processing conflicts arising from minor physical injuries where minors are involved, the Japanese require that the offender must first accept and confess his/her mistakes. Afterwards, both parties will discuss the impact of the crime until a unanimous agreement is reached. This reparation agreement is mandatory and should stipulate that the offender must pay his obligation and attend seminar vocation. For future reference, the court must be given a copy of the agreement and the processes undertaken. If the case is not processed as above-described, the offender and his family or their representative must approach the victim or his/her family and ask forgiveness and offer them compensation settlement. Whatever the result of their negotiation must be reported to the police officer/prosecutor in charge for them to either drop or file a case and ask the court for leniency in consideration of the accused's confession (Mikio, K., 2020).

Sadanga's *paranga* is a process used to resolve minor physical injuries and it has two forms. The informal way requires the parties to share or exchange their food with each other. If they cannot do it by themselves, their representative may facilitate the ritual. The formal way is through a ritual where the prayer of *paranga* myth is performed. Each party is required to step on any tribal apparatus while an elder utters the prayer and confesses the facts of the conflict. This ritual was adopted from a folklore about two warring parties in which Kabunyan interceded. One respondent explained that if these two processes must be done simultaneously, the *paranga* prayer should be performed first before they all partake of a butchered pig or carabao.

Another process used in Sadanga is *rakaw* which is exercised to punish persons with serious offenses like murder, serious physical injuries, arson, robbery, etc., except rape. Usually, *rakaw* comes in the form of properties (rice fields, pasture land) and money if the crime was committed within the town. However, if it is between two tribes, *rakaw* takes the form of money or animals (carabao). Settling serious criminal or civil conflicts starts with a tribal/ barangay meeting after being informed of the conflict. During the meeting, everyone is free to participate in the discussion to find the most suitable *rakaw* to be imposed. In murder and serious physical injury cases, the ritual of *paranga* is performed to mark the resolution of the conflict. However, in crimes against properties, only the *rakaw* is imposed to settle the conflict. One participant recalled a situation where *rakaw* and *paranga* were used. A certain Mr. Etaman accidentally killed his fellow hunter during a hunting event. As a result, the whole tribe convened to discuss the matter and they all agreed that the offender will not be killed.

Instead, he will offer two (2) parcels of rice fields to his victim's family. When the victim's family is ready to forgive the offender, elders will perform the *paranga* at the victim's residence where they will all share a meal of a butchered pig or carabao.

It can be gleaned from the foregoing that Japanese settle minor physical injury conflicts in a more formal, legal fashion while the Sadanga tribe does so in a ritualistic manner through their indigenous practices. Also, the police, prosecutor and court are involved in the settlement and depending on the sincerity of apology, charges may be dropped. In Sadanga, no formal authorities are involved in the settlement, although elders are considered authorities. Also, no punishment is imposed on the offender save for the cost of the butchered animal. For serious cases, Japan's punishments are still dependent on the offender's compensation and remedy of victim's feelings; while Sadanga's punishments depend on the severity of the crime. The elders in Sadanga have sole jurisdiction in deliberating what punishment is appropriate.

**Differences in terms of Rehabilitation of Offenders**

Japanese criminal system is characterized to be intent on catching criminals but not particularly eager to punish them (Mikio, K., 2020). The procedure of *bizai shobun* is one evidence that proves this point. It is practiced by the police in disposing minor cases. Offenders may be released as long as the police have sternly advised them not to re-offend and required them to sign an apology and an undertaking not to be involved in deviant behaviors in the future. A guardian must be called and told to supervise the suspect and write an undertaking to that effect. Before being let go, the suspect must also provide restitution or apology to his victim. A record of this procedure is kept by the police for purposes of deterring the suspect from re-offending (Sakiyama, M., 2011). Another evidence to prove Mikio's point is the *Shonenho* or the Juvenile Act of Japan which offers protection to juveniles instead of punishing them. Under this Act, the identity of the offender is explicitly forbidden from exposure, either to the public or to the victim's family and several alternative remedial actions are available, just not punishment (Benson, B., 2019).

Providing restitution to victims has a very serious effect in determining an offender's punishment. His character, confession, and the compensation he is willing to give in order to remedy his victim's feelings all help in diminishing the punishment. However, not all criminal cases are treated this way. Those who get the full extent of Japanese law are dealt with longer sentences, harsh prison conditions, or death penalty depending on the seriousness of their offense and the sinisterness of their character (Anderson, K., 2003).

Sadanga offers a unique mechanism in rehabilitating offenders through the *sapata*. According to one of the respondents, "*sapata*" is a self-investigative ritual used to chase an accused in criminal and civil case when there is no specific individual named responsible for the crime and all efforts to find one proved futile (Barnes and Magdalena, 2016). All suspects are required to make the *sapata* by raising their right hand and pledge a punishment which they are willing to pay if found guilty. It is believed that if one is the criminal, such punishment will soon be upon them in the coming days or for the rest of their life. But if they are not the offender, it will have no bearing on them and they shall live longer.

Based on the two instances above, there is clear evidence that rehabilitating offenders is the primary goal of Japan's justice system as can be deduced from the prosecutor's infamous discretion to suspend prosecution or recommendations for summary executions. While this process advocates treating offenders with compassion and humanity, it seems to undermine the victim's desire that justice be done by the state on his/her behalf. Sadanga's *sapata* process is different this way as it can be deduced that such mechanism is geared more at finding out the truth than reintegrating the offender into the society.

The findings of the study infer that cultural norm is taking its place as an element in the peace pact settlement may it be restorative justice or dispute resolution. This academic paper implicates many more studies that follow different paths such as governance, sustainability of the processes and its applicability in the modern society.

**CONCLUSION**

Restorative justice has become popular due to its effectiveness in resolving conflicts among juveniles but there is very limited evidence of its applicability in resolving serious criminal offenses among adults. Why? Because when the offense is violent in nature, concern for the victim's safety may not be assured when the mediation requires the presence of both offender and victim in one

setting. This concern stems from the assumption that there already exists an imbalance of power between them as a result of the crime. Instead of resolving the conflict, it may even aggravate the trauma experienced by the parties which may bring about feelings of re-victimization on the aggrieved party. Moreover, most restorative justice models lack support for pre- and post-mediations which are important in assessing the psychological capacity of the parties to undergo mediation and in following-up their situation after the restorative process. These are legitimate issues that affect the effectiveness of restorative justice in serious crimes. It is therefore fundamental that legal and procedural safeguards be in place to guarantee that such processes are not detrimental to participants, especially the victims.

## RECOMMENDATION

Based on the result of this research and conclusions, the following recommendations are put forth, to wit:

1. It is evident that the indigenous dispute resolution mechanisms of Sadanga, having been practiced by the locals for several years now, possess potential. However, there is a need to re-assess said mechanisms to include procedural safeguards as recommended by the Basic Principles of the United Nations. The mechanisms have a potential to become a model of restorative justice program in resolving serious criminal matters.

2. Aside from co-existence and rehabilitation, there are other valuable lessons that can be drawn from the restorative practices of Sadanga and Japan. Sadanga's elders or barangay officials can learn from Japan's principles of apology and forgiveness and have these incorporated in their indigenous dispute resolution mechanisms.

3. In order to clearly understand the indigenous dispute resolution mechanisms of Sadanga, future researchers might want to conduct a phenomenological study to delve into the lives of those who have undergone the process. Questions like, "Was the victim satisfied with the outcome of the process?" and "Did the offender recidivate?" are conceivable research problems that are worth exploring.

4. The researcher also recommends that other indigenous dispute resolution models being practiced in the Philippines be examined by other researchers to compare and contrast them with each other and maybe generate a proposal on how restorative justice can be effectively implemented in cases involving serious offenses and gender-related crimes.

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# SCHOOL CANTEEN FACILITIES AND SERVICES: STUDENT SATISFACTION AND PROBLEMS ENCOUNTERED

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## ABSTRACT

**Part of the school's wholesome academic experience to offer its students is to provide nutritious and healthy foods to sustain their physical well-being. This descriptive study aimed to determine the respondents' satisfaction with the school canteen services and facilities and the problems encountered in the same area and ascertain if significant differences existed when the respondents were group according to program enrolled. Utilizing the 92 randomly selected students from the different courses, data was gathered using the duly validated researcher-made instrument. They were analysed using the mean, frequency, percentage, and ANOVA set at 0.05 level of significance. The study's findings revealed that most of the respondents were fairly satisfied with the college's canteen services and facilities. The majority of the students agreed to highly agree with the problems presented for the canteen services and facilities. The canteen services' level of satisfaction and facilities' problems do not significantly differ from each college. The researcher found out that there were many practices to improve, like wearing gloves, hairnet, and cap when handling the food and being aware of the healthy and proper behaviour when sneezing or coughing. The researcher recommended that the food preparation area should be free from insects and other pests. The foods taste served may be improved for the customer's satisfaction, and may offer various menus to broaden the customers' food choices.**

*Keywords: Health, Sanitation, Food Service, Canteen, Problems*

## INTRODUCTION

A canteen or cafeteria is a place or a camp in school in which personnel sells foods, drinks, and small supplies. It is also a place where anyone can energize himself/herself (Labay, 2015). It is the responsibility of the school canteen to provide quality foods and services to its customer. Services in the canteen are as crucial as educational resources. It gives students choices in foods that are being served, and it also includes food services and small items for some colleges and universities. The researcher deemed it necessary for a canteen to provide services and merchandise at high quality and reasonable prices to the community efficiently and profitably.

According to Brener et al. (2009), an institution can develop healthy dietary behaviors. The college should provide menus that promote a healthy diet among its students and personnel. It is the canteen personnel's responsibility to see to it that students should get the right amount of nutritious foods and, at the same time, not limiting

their food choices. The food prepared by the college cafeteria must contain all the nutrients needed by an individual. To satisfy the students fully, the canteen personnel may adjust and adapt to its student's needs. Proper implementation of policies and regulations, like having different menus every day, that will meet the standards of sufficient nutritious foods is necessary.

At present, ISCOF canteen is giving its best to provide good quality service to supplement the student's needs. But despite its attempt, the canteen can't accommodate a significant number of students due to lack of space; proper ventilation, lack of personnel and other immediate concerns. To determine its effectiveness, it is pertinent to assess its services through the satisfaction of the students' clients.

Employee and client satisfaction are essential elements of success in any canteen operation (Bay, An &Laguador, 2014). Services by the employees' to the customer have the most substantial influence onrelationship quality (Bencito, 2014). College canteen should strive to be productive,

and it should be measured and may include student support, number of canteen workers, and profitability. Profit from the operations of a college canteen is often a significant source of revenue for any institution. It is of great importance that the nutritious food items attracted students and are offered at a price affordable to the students, contributing to their profit (Department of Education and Early Childhood Development, 2013).

It was in this context that the researcher pursues this study. It is hoped that the result of the study provides constructive inputs to improve the canteen's services.

## Statement of the Problem

This study was conducted to determine the respondents' satisfaction and problems with the school canteen services and facilities.

Specifically, this study aims to answer:
1. What is the respondents' level of satisfaction with school canteen services and facilities when taken as a whole and group according to program enrolled?
2. What are the respondents' problems encountered on school canteen services and facilities when taken as a whole and grouped according to program enrolled?
3. Is there a significant difference in school canteen services and facilities' satisfaction when respondents are grouped according to program enrolled?
4. Is there a significant difference in the problem encountered on school canteen services and facilities when respondents are grouped according to program enrolled?

## Research Design

The researcher used the descriptive method. According to Best and Kahn (2007), the term descriptive research has often been misused to describe three types of investigation that are different. Perhaps their superficial similarities have obscured their difference. Each of them employs the process of disciplined inquiry through the gathering and analysis of empirical data, and each attempts to develop knowledge. To be done competently, each requires the expertise of the careful and systematic investigator. A brief explanation may serve to put each one in a proper perspective.

The survey research employs the scientific method's applications by critically analyzing and examining the source materials, analyzing and interpreting data, and arriving at generalization and prediction.

## Locale of the Study

This study was conducted at Iloilo State College of Fisheries Main Poblacion Campus.

## Respondents of the Study

The respondents are the 92 students from the different college department of the School determined by using the Slovins formula. Eighteen of whom were from the CHM, 34 from the COED, 22 from CICT and 18 from the CIT. The researcher used the Stratified Random Sampling.

## Data Gathering Instrumentation

To gather the data needed for this study, the researcher utilized the 17 items questionnaire on the satisfaction of services and facilities and 14 items questionnaire on the problems encountered on the canteen's delivery of services. The questionnaire was constructed based on other approved studies. Experts duly validated all the instruments used in this study. The researcher incorporated suggestions and corrections of the experts into the instruments. The level of satisfaction with the facilities and services rendered description and assigned weights to each option ranges from 1 to 5. The responses and scores were: Very satisfied -5, Satisfied 4, Fairly Satisfied -3, Dissatisfied-2, Very dissatisfied-1. With problems encountered on the facilities and services rendered, descriptions and assigned weights to each option ranged from 1 to 5. The responses and scores were: 1 -Strongly Disagree 2- Disagree 3-Agree 4. Highly Disagree.

## Data Gathering Procedures

Before the researcher underwent the study's actual conduct, the researcher wrote a letter of permission to each department's college dean. Questionnaires are given to the respondents who were asked to read and answer the questions themselves. Retrieval was done right after the respondent has completed answering the questionnaire. In retrieving, the researchers double-check each item on the questionnaire, if corrected and thoroughly answered, to avoid discrepancies in the data processing.

## Data Analysis and Interpretation

The computer-generated result of the data was processed using Statistical Package of Social Science (SPSS). The data were analyzed using the statistical tools appropriate for each specific objective and the variables' performance level. The results were analyzed and were interpreted by the researchers with the guidance of the adviser.

# FINDINGS

## Level of Satisfaction on school canteen services and facilities.

Data in table 1 shows that with regards to the satisfaction level on school canteen services and facilities, the College of Hospitality Management and the College of Education were fairly satisfied with the services rendered in the canteen, likewise with the facilities with a mean of 3.33 and 3.12 respectively. In contrast, the College of Information and Communication Technology and the College of Industrial Technology was unsatisfied with the canteen services and facilities with a mean of 2.91 and 2.82. Furthermore, when taken as a whole, the data also shows that with a total mean of 3.05 and a total standard deviation of .51571, most of the respondents were fairly satisfied with the canteen services and facilities of the Iloilo States College of Fisheries Main Campus-Poblacion campus.

**Table 1. Respondents Level of Satisfaction According to the Program Enrolled and when taken as whole**

| Program Enrolled | N | Standard Deviation | Mean | Description |
|---|---|---|---|---|
| College of Hospitality Management | 18 | .67708 | 3.33 | Fairly Satisfied |
| College of Education | 34 | .51829 | 3.12 | Fairly Satisfied |
| College of Communication and Information Technology | 22 | .46979 | 2.91 | Fairly Satisfied |
| College of Industrial Technology | 18 | .00000 | 2.82 | Fairly Satisfied |
| **Total** | **92** | **.51571** | **3.05** | **Fairly Satisfied** |

| Scale | Description |
|---|---|
| 1.00-1.79 | very unsatisfied |
| 1.80-2.59 | unsatisfied |
| 2.60-3.39 | fairly satisfied |
| 3.40-4.19 | satisfied |
| 4.20-5.00 | very satisfied |

## Problems Encountered on School Canteen Services and Facilities when taken as a whole

Data in Table 2, shows the respondent's responses on the problems encountered on school canteen services and facilities when taken as a whole; *out of the 14 problems presented, seven items were identified as highly agreed by the respondents. The top 7 are as follows, the food preparation area is not free from insects, and other animals/pests, with 33 or 35.9 percent highly agree with the problem. 37 or 40.2 percent highly agree with the canteen personnel do not wear gloves during handling foods. Regarding the canteen, personnel does not use handkerchief or tissue when coughing or sneezing;* 34 or 37.0 per-

cent highly agreed with the problem. In comparison, 33 or 35.9 percent highly agree with *the food is served cold*, 37 or 40.2 percent said that *Food choice is limited* and Benchmark "insufficient garbage bins with a sign or direction on the proper disposal of garbage, 33 or 35.9 percent.

**Table 2. Distribution of the Respondents' Response in the Problem's encountered with the Canteen Service and Facilities when taken as a Whole**

| Problems Encountered | Description | Frequency | Percentage |
|---|---|---|---|
| The area is insufficient, and tables and chairs are lacking | SD | 1 | 1.1 |
| | D | 22 | 23.9 |
| | A | 40 | 43.5 |
| | HA | 29 | 31.5 |
| Poor ventilation | SD | 0 | 0 |
| | D | 34 | 37 |
| | A | 32 | 34.8 |
| | HA | 26 | 28.3 |
| The price of the food is inappropriate and not affordable | SD | 1 | 1.1 |
| | D | 55 | 59.8 |
| | A | 27 | 29.3 |
| | HA | 9 | 9.8 |
| The food preparation area is not free from insects and/or other animals/pests | SD | 0 | 0 |
| | D | 32 | 34 |
| | A | 27 | 29.3 |
| | HA | 33 | 35.9 |
| The canteen personnel do not wear gloves during handling foods | SD | 1 | 1.1 |
| | D | 28 | 30.4 |
| | A | 26 | 28.3 |
| | HA | 37 | 40.2 |
| The canteen personnel do not wear hair net or cap during handling foods | SD | 1 | 1.1 |
| | D | 31 | 33.7 |
| | A | 43 | 46.7 |
| | HA | 17 | 18.5 |
| The canteen personnel do not wash their hands before handling foods and frequently during work | SD | 5 | 5.4 |
| | D | 34 | 37.0 |
| | A | 37 | 40.2 |
| | HA | 16 | 17.4 |
| The canteen personnel do not use handkerchief or tissue when coughing or sneezing | SD | 6 | 6.5 |
| | D | 29 | 31.5 |
| | A | 23 | 25.0 |
| | HA | 34 | 37 |
| Tables and leftovers are not cleaned at the end of serving meals | SD | 3 | 3.3 |
| | D | 37 | 40.2 |
| | A | 36 | 39.1 |
| | HA | 16 | 17.4 |
| The washing area/wash basin is not operational | SD | 1 | 1.1 |
| | D | 50 | 54.3 |
| | A | 26 | 28.3 |
| | HA | 15 | 16.3 |
| The taste of the food is not satisfying | SD | 0 | 0 |
| | D | 35 | 38.0 |
| | A | 42 | 45.7 |
| | HA | 15 | 16.3 |
| The food is served cold | SD | 1 | 1.1 |
| | D | 33 | 35.9 |
| | A | 25 | 27.2 |
| | HA | 33 | 35.9 |
| Food choice is limited | SD | 2 | 2.2 |
| | D | 25 | 27.2 |
| | A | 28 | 30.4 |
| | HA | 37 | 40.2 |
| Insufficient garbage bins with a sign or direction on the proper disposal of garbage | SD | 1 | 1.1 |
| | D | 33 | 35.9 |
| | A | 25 | 27.2 |
| | HA | 33 | 35.9 |

Strongly Agree=SD, Disagree-D, Agree= A, Highly Agree=HA

## Problems Encountered on School Canteen Services and Facilities When Grouped According to College Enrolled

To determine the problems encountered by respondents with the canteen facilities and services, they were asked to check whether they highly agree, agree, disagree, and strongly disagree with the 14 items benchmark statement.

Data in Table 3 shows the respondents' responses.

With regards to the canteen area is insufficient in space, tables and chairs are lacking. The CHM agrees to highly agree with the identified problem while one-half of the COED said they disagree; however, more than one-third said they agree. In contrast, most of the CICT said that they agree, and all of the CIT was highly agree that the canteen's space is insufficient and tables and chairs are lacking.

As to poor ventilation, all of the colleges enrolled agree to highly agree that the canteen has poor ventilation and needs some air.

Regarding the food's canteen price is inappropriate and not affordable, most of the respondents do not agree, and only a few said they agree with the problem.

As to the food preparation area is not free from insects and other animals/pests. The majority of the respondents said they agree and that the food preparation area is not free from pests and other insects.

As to the canteen, personnel does not wear gloves during handling foods. The respondents agree to highly agree that the personnel does not wear gloves when handling foods.

With regards to the canteen, personnel does not wear hair nets or caps during handling foods. Aside from the CHM, who more than one-half said that they disagree, the rest of the respondents agreed.

As to the canteen, personnel do not wash their hands before handling foods and frequently during work. More than one-third of CHM said that they agree and most of the CIT was agree to highly agree that canteen personnel does not wash their hands before handling the food. While the COED and CICT mostly disagreed.

As to the canteen personnel, do not use handkerchief or tissue when coughing or sneezing. The respondents' responses range from disagree to highly agree, except for CIT, who was one hundred percent highly agree.

With regards to tables and leftovers are not cleaned at the end of serving meals. The majority of the respondent's responses disagree. This means that the canteen personnel cleaned the tables and leftovers after serving the meals. The washing area/washbasin is not operational. The respondent's responses vary from each other. It ranges from disagree to agree highly; this means that their opinion on this problem differs from each other.

As to the taste of the food is not satisfying in the canteen. More than three-fourths from CHM and COED said they disagree, while more than one-half from CICT said they disagree, while one hundred percent from CIT said they highly agree.

With regards to food, the choice is limited. The majority of the college enrolled agree to agree highly, and very few disagree with the problem stated.

As to insufficient garbage bins with a sign or direction on the proper disposal of garbage. More than three-fourths from CHM said they disagree, and a little less than three-four highly agree, while one-half from COED said they disagree. And less than one-half from CICT said that they agree; moreover, one hundred percent from CIT highly agreed that there are insufficient garbage bins with a sign or direction on proper disposal of the garbage.

When taken as a whole, the College of Hospitality Management agree with all the problems encountered in the School's services and facilities, with a mean of 2.89 and std deviation of .758. Likewise with the College of Education with a weighted mean of 2.59 and std deviation of .609.

However, the College of Information and Communication Technology and College of Industrial Technology highly agree with all the problems encountered in the canteen services and facilities in Iloilo State College of Fisheries with a mean of 2.91 and 3.00 respectively.

**Table 3. Distribution of the Respondents' Response in the Problem's encountered with the Canteen Service and Facilities when Grouped According to College enrolled**

| Item | | CHM | | COED | | CICT | | CIT | |
|---|---|---|---|---|---|---|---|---|---|
| | | F | % | F | % | F | % | F | % |
| 1. Area is insufficient and tables and chairs are locking. | SD | 1 | 5.36 | 0 | 0 | 0 | 0 | 0 | 0 |
| | D | 3 | 16.67 | 17 | 50 | 2 | 9.09 | 0 | 0 |
| | A | 8 | 44.44 | 12 | 35.29 | 20 | 90.91 | 0 | 0 |
| | HA | 6 | 33.33 | 5 | 14.71 | 0 | 18 | 18 | 100 |
| 2. Poor ventilation | SD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | D | 7 | 38.89 | 20 | 58.82 | 7 | 31.82 | 0 | 0 |
| | A | 7 | 38.89 | 2 | 35.29 | 13 | 59.09 | 0 | 0 |
| | HA | 4 | 22.22 | 2 | 5.88 | 2 | 5.88 | 18 | 100 |
| 3. The price of the food is inappropriate and not affordable. | SD | 0 | 0 | 1 | 2.94 | 0 | 0 | 0 | 0 |
| | D | 6 | 33.33 | 20 | 58.82 | 11 | 50 | 18 | 100 |
| | A | 7 | 38.89 | 11 | 32.35 | 9 | 40.91 | 0 | 0 |
| | HA | 5 | 27.78 | 2 | 5.88 | 2 | 9.09 | 0 | 0 |
| 4. The food preparation area is not free from insects and/or other animals/pets. | SD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | D | 7 | 38.89 | 18 | 52.94 | 7 | 31.82 | 0 | 0 |
| | A | 5 | 27.78 | 13 | 38.24 | 9 | 40.91 | 0 | 0 |
| | HA | 6 | 33.33 | 3 | 8.82 | 6 | 27.27 | 18 | 100 |

| Item | | f | % | f | % | f | % | f | % |
|---|---|---|---|---|---|---|---|---|---|
| 5. The canteen personnel do not wear gloves during handling food. | SD | 1 | 5.36 | 0 | 0 | 0 | 0 | 0 | 0 |
| | D | 7 | 31.82 | 18 | 38.89 | 7 | 52.94 | 7 | 31.82 |
| | A | 5 | 14.71 | 13 | 27.78 | 9 | 38.24 | 9 | 40.91 |
| | HA | 5 | 27.27 | 3 | 33.33 | 6 | 8.82 | 6 | 27.27 |
| 6. The canteen personnel do not wear hair net or cap during handling food. | SD | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4.55 |
| | D | 10 | 45.53 | 14 | 55.56 | 7 | 41.18 | 7 | 31.82 |
| | A | 4 | 22.22 | 13 | 22.22 | 8 | 35.24 | 0 | 36.36 |
| | HA | 4 | 22.22 | 7 | 22.22 | 6 | 20.19 | 18 | 27.27 |
| 7. The canteen personnel do not wash their hands before handling foods and frequently during work. | SD | 2 | 11.11 | 2 | 5.88 | 1 | 4.55 | 0 | 0 |
| | D | 6 | 33.33 | 16 | 47.06 | 12 | 54.55 | 0 | 0 |
| | A | 3 | 33.33 | 10 | 29.41 | 6 | 27.27 | 18 | 100 |
| | HA | 7 | 38.89 | 6 | 17.65 | 3 | 13.64 | 0 | 0 |
| 8. The canteen personnel do not use handkerchief or tissue when coughing or sneezing. | SD | 3 | 16.67 | 0 | 0 | 3 | 13.64 | 0 | 0 |
| | D | 6 | 33.33 | 15 | 44.12 | 5 | 36.36 | 0 | 0 |
| | A | 3 | 16.67 | 14 | 41.18 | 6 | 27.27 | 0 | 0 |
| | HA | 6 | 33.33 | 5 | 14.71 | 5 | 22.73 | 18 | 100 |
| 9. Tables and leftover are not cleaned at the end of serving meal. | SD | 2 | 11.11 | 0 | 0 | 1 | 4.55 | 0 | 0 |
| | D | 7 | 38.89 | 19 | 55.88 | 11 | 50 | 15 | 83.32 |
| | A | 2 | 11.11 | 11 | 32.35 | 5 | 22.73 | 2 | 11.11 |
| | HA | 7 | 38.89 | 4 | 11.76 | 5 | 22.73 | 0 | 0 |
| 10. The washing are/wash basin is not operational. | SD | 1 | 5.56 | 0 | 0 | 0 | 0 | 0 | 0 |
| | D | 6 | 33.33 | 15 | 44.12 | 12 | 66.56 | 18 | 100 |
| | A | 7 | 38.89 | 14 | 41.18 | 5 | 22.73 | 0 | 0 |
| | HA | 4 | 22.22 | 5 | 14.71 | 6 | 27.27 | 0 | 0 |
| 11. The taste of the food is not satisfying. | SD | 8 | 44.44 | 15 | 44.12 | 12 | 54.55 | 0 | 0 |
| | D | 5 | 27.28 | 13 | 38.24 | 6 | 27.27 | 0 | 0 |
| | A | 5 | 27.28 | 6 | 17.65 | 4 | 18.18 | 0 | 0 |
| | HA | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 100 |
| 12. The food served is cold. | SD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | D | 8 | 44.44 | 17 | 50 | 8 | 36.36 | 0 | 0 |
| | A | 4 | 22.22 | 11 | 32.35 | 10 | 45.45 | 0 | 0 |
| | HA | 6 | 33.33 | 6 | 17.65 | 3 | 13.64 | 18 | 100 |
| 13. Food choice is limited. | SD | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | D | 5 | 27.78 | 16 | 47.06 | 4 | 18.18 | 0 | 0 |
| | A | 6 | 33.33 | 11 | 32.35 | 11 | 50 | 0 | 0 |
| | HA | 7 | 38.89 | 7 | 20.59 | 5 | 22.73 | 18 | 0 |
| 14. Insufficient garbage bins with a sign or direction on the proper disposal of garbage. | SD | 0 | 0 | 1 | 2.94 | 0 | 0 | 0 | 0 |
| | D | 7 | 38.89 | 17 | 50 | 9 | 40.91 | 0 | 0 |
| | A | 6 | 33.33 | 10 | 29.41 | 9 | 40.91 | 0 | 0 |
| | HA | 5 | 27.28 | 6 | 17.65 | 4 | 18.18 | 18 | 100 |

**Strongly Agree=SD, Disagree-D, Agree= A, Highly Agree=HA**

**The difference in the level of Satisfaction on the School Canteen Services and Facilities when respondents were grouped according to program enrolled.**

The difference in the level of satisfaction on school canteen services and facilities when respondents grouped according to program enrolled and the difference in the problem encountered on school canteen services and facilities when respondents grouped according to program registered shows in table no. 4. The F computation reveals no significant difference with F (58) =2.297, P=.088, which is not significant at the 5 percent significance level. The result indicates the hypothesis is accepted, which states that there is no significant difference in the level of satisfaction on the school canteen services and facilities when respondents are grouped according to program

enrolled, the same with the problem encountered on school canteen services and facilities.

The result means that the level of satisfaction and the problem encountered on school canteen services and facilities by the different colleges enrolled in Iloilo State College of Fisheries does not vary. Other individuals have different levels of satisfaction, opinions, and needs.

**Table 4. Anova result for the difference in the level of Satisfaction on the School Canteen Services and Facilities when respondents are grouped according to program enrolled**

| | sum of square | df | Mean Square | f | Sig. |
|---|---|---|---|---|---|
| Between Group | 1.502 | 3 | .501 | 2.297 | .088 |
| Within Group | 11.991 | 55 | .218 | | |
| **TOTAL** | **13.493** | **58** | | | |

p>0.05, not significant at .05 alpha

**The difference in the problem encountered in the School Canteen Services and Facilities when respondents grouped according to program enrolled**

The difference in the problem encountered on school canteen services and facilities when respondents grouped according to program enrolled shows in table no 5. The F computation reveals no significant difference with F (58) =2.387, P=.078, which is not significant at the 5 percent significance level. The result indicates the hypothesis is accepted, which states that there is no significant difference in the school canteen services and facilities' problem when respondents grouped according to program enrolled.

The result means that the problem encountered on school canteen services and facilities by the different colleges enrolled in Iloilo State College of Fisheries does not vary. Other individuals have different levels of satisfaction, opinions, and needs.

**Table 5. Anova result for the difference in the problem encountered on the School Canteen Facilities and Services when respondents are grouped according to program enrolled**

| | sum of square | df | Mean Square | f | Sig. |
|---|---|---|---|---|---|
| **Between Group** | 1.403 | 3 | .498 | 2.387 | .078 |
| **Within Group** | 11.871 | 55 | .220 | | |
| **TOTAL** | 13.274 | 58 | | | |

p>0.05, not significant at .05 alpha

## CONCLUSION

Due to individual differences, the respondents have a different level of satisfaction towards the canteen services and facilities. Many of the students were unsatisfied to fairly satisfied with the canteen services and facilities.

1. The study results show that the canteen needs improvement when it comes to their services and facilities; the respondents agree to highly agree that the canteen has low tables and chairs and that the ventilation is inadequate.
2. However, many disagree about the price of the food is inappropriate and not affordable. It means that the cost of the food in the canteen is reasonable. The majority of the respondents find that the canteen personnel does not wear gloves, hairnet, and cap when handling the food; when they are sneezing or coughing, they were not using handkerchief or tissue. It implies that the canteen personnel does not practice adequate sanitation when handling food.
3. The respondents' varied responses to the taste of the food are not satisfying, and food choice is limited; the responses range from disagreeing to agree highly. Thie result implies that there is a need to improve taste and food choices in the canteen.
4. The level of satisfaction and the problem encountered with the canteen services and facilities does not significantly differ from each college enrolled. The study's result implied that each respondent has various needs, wants, and tastes, but they say that the canteen services and facilities need improvement.

## RECOMMENDATION

Based on the findings and conclusions drawn from the study, the researcher presented the following recommendations:

1. The management of the canteen should consider buying additional chairs and tables for the clientele use and should improve ventilation
2. The researcher recommended that school canteen personnel wear gloves and hairnets or caps when handling foods or serving foods to their customers.
3. School canteen personnel must also use a handkerchief or tissue when sneezing or coughing. School canteen personnel may wash their hands before handling foods for safety and the cleanliness of the foods they served.
4. The taste of the foods served should be enhanced for the customers' satisfaction and other menus so that there were lots of food choices for the customers.
5. And washing area or washbasin should operate for the customers to wash their hands before and after eating, specifically during lunchtime. Lastly, the researcher recommended that garbage bins with labels for proper garbage disposal.

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# FRIGHT OR FLIGHT? A CLASSROOM-BASED INVESTIGATION OF SPEECH APPREHENSION, ATTITUDE AND ORAL PERFORMANCE

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## ABSTRACT

**The study generally aimed at determining the public speaking attitude, apprehension level, and oral performance of foreign students of the BS Pre-med program of the College of Arts and Sciences at the Cagayan State University, Carig Campus. Three instruments were used in the study namely: attitudinaire, Personal Report on Public Speaking Apprehension (PRPSA) by James McCroskey, and an Oral Performance rubric. The respondents' public speaking attitude is described as "medium level of attitude"; their public speaking apprehension level is described as "moderate" and their level of oral performance has a descriptive interpretation of "Good". The study revealed that there is a significant difference on the respondents' public speaking attitude, apprehension level and oral performance when grouped according to profile variables (sex, parents' highest educational attainment, type of school graduated from, language exposure). Public Speaking Apprehension level significantly differed on sex, type of school graduated from, and father's and mother's educational attainment. Only language exposure was found to be insignificant. Meanwhile, the oral performance of the respondents varied significantly in all profile variables tested. Pearson-r correlation further revealed that there is a significant relationship between the respondents' public speaking attitude, apprehension level and oral performance. Speaking Attitude and Apprehension Level were significantly related with each other. Positive correlation was also found between speaking attitude and oral performance. Finally, apprehension level and oral performance correlated with each other.**

*Keywords: Fright, Oral performance, Personal Report on Public Speaking Apprehension, Speaking apprehension, Speaking attitude*

## INTRODUCTION

Speaking is an indispensable activity of the humankind. Imagine life without it - it would be very difficult, if not impossible, for men to communicate their thoughts and enjoy the benefits that go along with communication. Apart from the fact that men use it in every sphere of their existence, there is an incredibly wide range of benefits they could get from speaking – from their private lives to professional growth down to public life outside work.

All can speak; however, not everybody can speak effectively, for speaking effectively is a skill. This skill can contribute enormously to personal success. The knowledge acquired in school, on the job, or during leisure activities will be great, but unless men can communicate that knowledge – to individuals, as well as to large groups – few people will even know they have it (Hanna & Gibson, 2001).

The ability to communicate what one knows and what he can do, will greatly enhance his personal and professional growth. In the context of universities, though, students seem to underrate the impact public speaking could have in their student life and in their future careers. No matter how speech instructors reiterate the importance of public speaking, they would occasionally hear students say that what is taught in the basic public speaking course or in English subjects that necessitate communication skills is common sense. As such, they miss the mark of recognizing that public speaking is way beyond just a practical task, because if it were, then why have researchers for years studied rhetoric and continue to do so? Why

do universities require speaking classes? The answer is pretty simple. There is a profound difference between being able to judge a speech when one is in the audience and being able to develop and deliver a speech that appeals to an audience. This misnomer and attitude that students have towards public speaking can lead also to negative results particularly in their oral performance. The saying "Your attitude determines your altitude" is also true for public speaking. If one feels and thinks that he cannot, he definitely will fail. On the other hand, if he believes and thinks he can, then he will. (www.businesstrainingdirect.co.uk, 2016) Presenting before the public, in other words, requires a fitting attitude; otherwise, students are more likely to fail in their academic endeavors. They may have the impulse of avoiding certain courses or even major subjects where oral presentations are required. The negative attitude that they have may lead them to being so anxious about speaking or presenting.

The foreign students, especially the overwhelming number of Indian nationals in the university are no exemption to this. In fact, it has been observed that in their English classes and even in their professional subjects, they are passive and they usually shy away from speaking before the class. It is concerning that the educative process is hampered because it already becomes a teacher-centered orientation. As recourse, teachers give them oral activities. Still, these students seem uninterested or are scared to present before the class.

## LITERATURE REVIEW

Many researchers claim that foreign language anxiety influences language learning. Whereas facilitating anxiety produces positive effects on learners' performance, too much anxiety may cause a poor performance (Scovel, 1991). Many students fear public speaking because of their wrong attitude assuming that they are on the stage to control the public. They develop stress when they have negative outcomes from certain people in the group. However, it must be noted that public speaking anxiety is shared and experienced by so many college students. It is normal, yet these individuals could hardly manage such anxiety. There are those who recognize that their fear is excessive and/or unreasonable but are still unable, without resistance, to change their responses in those situations.

Beatty et.al (1988) as cited by Kostić-Bobanović and Bobanović (2004) opined that speech anxiety may stem from numerous sources such as public speaking skills, fluency in foreign language, emotional predispositions towards public speaking, and characteristics of the public situation itself.

There are several theories that explains the existence of public speaking apprehension. One theory tells that public speaking anxiety is innate. This 'communibiological' explanation proposes that for some of us, public speaking apprehension stems from our temperament. In technical sense, the theory forwards the idea that two aspects of temperament, extroversion/introversion and neuroticism blend together to create higher levels of public speaking apprehension. It says, those who are extroverted experience lower levels of PSA while the introverted ones experience the opposite. This theory also explains that while some may be temperamentally predisposed toward high PSA, it does not necessarily mean they are doomed to be ineffective in their speaking; rather, it suggests that they will be 'working against the grain'. Another plausible theory that explicates PSA is the individual's previous speaking experiences. The idea is very simple. It opines that how well or bad one performed in past situations is likely to affect how apprehensive he is about speaking in public now. Simply put, if an individual had received negative reinforcements in his public speaking efforts, the bigger the likelihood of higher PSA level. If the reinforcement received was positive, lower levels of PSA are likely to be experienced. Of all the theories, the most convincing explanation of PSA according to researchers is the so-called 'Skill deficit' theory. Such theory was the earliest explanation of PSA and continues to receive the attention of researches. It suggests that most people become apprehensive because they don't know how to plan or prepare effectively for a public presentation. It also explains that if other components of communication are poor like grammar, or if the individual lacks, for instance, the command of the language, then, the more problematic it becomes, thus leading to higher levels of PSA.

Needless to say, in spite of a technology-driven society, the ability to communicate continues to be an essential skill for students at school and university, and one way of assessing proficiency in communication is through oral presentations. Oral presentations, according to Levin and Topping (2006) as cited by Abdul-Kareem et al (2015), is planned and practiced speech that is not

memorized or read from notes but is introduced by a presenter to an audience. They add that one can look at oral presentation from three perspectives: presentation as a transmission of the ideas of others to a passive audience with anxiety at a low level, presentation as an imparting of the material studied from which students seek to make their own meanings from the ideas of others, and presentation as a position to be disputed and defended by persuading the audience. In the second perspective, the audience is actively judging students' performances, and students reply to audience questions. Hence, students experience some stress. In the third perspective, students are aware that they are the focus of attention, which creates even more pressure than the first two situations.

According to Toth (2012), oral presentation can be an anxiety-provoking experience. In fact, several studies prove this point. Studies conducted in various instructional contexts have found a moderately negative relationship between anxiety and various indices of oral proficiency. Still other researches which examined the relationship between learners' anxiety scores and some assessment of their output found significant negative correlations.

Speaking problems often encountered by students according to Tuan and Mai (2015) include inhibition, lack of motivation to express themselves and lack of participation. Primary factors, the two say, are performance conditions, affective factors such as motivation, self-confidence and anxiety, listening ability, and topical knowledge.

In a study conducted by Zhang Xiangping (2004) to 97 non-English major college students in an ordinary university in China, he found out that there was a reverse relationship between language anxiety and the quality of oral performance. This means that when his subjects indicated higher anxiety score, the lower their oral performance was. He added that procrastination, fear of evaluation and over-concern of errors were characteristics obviously noted in their speech.

Park and Lee (2005) found similar results in their study entitled "L2 Learners' Anxiety, Self-Confidence and Oral Performance." The two examined the relationship between second language learners' anxiety, self-confidence and speaking performance of 132 Korean college students. The learners' anxiety level was reported to be negatively related to their oral performance.

Meanwhile, Tuan and Mai (2015) confirmed that a variety of factors affect or influence students' speaking performance. The most important factor, they say, is topical knowledge followed by listening ability and motivation to speak. Besides, the teachers' feedback during speaking activities was also reported to affect student performance.

In June 2011, Janulevičienė and Kavaliauskienė made a study entitled "English for Specific Purposes & Public Speaking: Comparative Study." They attempted to identify students' attitudes towards academic public speaking in English and the cause of sometimes reluctant/poor accomplishment of the task by examining learners' views on preparing and delivering presentations, exploring strengths and weaknesses in public speaking of learners with different cultural background and deducing some elements vital in teaching to master speaking skills. They employed a survey of learners' attitudes towards speaking in front of an audience and perceptions of individual difficulties in preparation and delivery stages. They found out that in terms of difficulties encountered in preparing presentations, major problems arise in the process of selecting appropriate information and memorizing the contents of one's talk. Also, difficulties in delivering presentation were primarily attributed to fear of speaking. Meanwhile, results also showed that after the presentation, 18% of the respondents felt a sense of failure and only 15% are satisfied with their accomplishment. With the results, the researchers suggest that in the process of instruction, teachers have to encourage learners by giving praise and enhance their self-confidence using well-known techniques of psychological persuasion and re-assurance. Also, they say, there is a necessity of negotiating with learners the ways of improving their negative perceptions.

Kostić-Bobanović (2007) in her study "Coping with public Speaking Anxiety," investigated whether or not affective strategies could help students cope with their anxiety level. Prior to the actual conduct of the research, Bobanović developed 9 affective strategies which she developed herself and taught the students. Results of her study show that the respondents' levels of public speaking anxiety were significantly and moderately high at the beginning of the semester. After the teaching of the affective strategies, a significantly greater number of students reported low levels of PSA.

The same study was conducted by Yau-hau Tse (---2011). He sought to answer which between males and females have greater amount of anxiety before giving a speech and what possible interventions can be done to reduce their anxiety in speaking publicly. It was conducted to 101 students composing of Malays, Chinese and Indians.

The study revealed that at the beginning of the semester, a great number of students experienced high (n=58) and moderately high (n=42) levels of public speaking anxiety. However, after the teaching of affective strategies, a smaller number of students reported high (n=10) and moderately high (n=20) levels of distress while speaking in public. The study concluded that the use of affective strategies can reduce high levels of public speaking anxiety. He also recommended the following: a) recognize own feelings, b) share feelings with others, and c) practice speaking since practice makes perfect.

Meanwhile, Schmidt (2015) conducted a study entitled 'Flexing the wings of Presentation: Does Teaching Improvisation Affect Students' Self-Report of Public Speaking Confidence? In her study, she specifically wished to know the effect of teaching improvisational skills on the students' self-reported confidence or anxiety regarding public speaking. She found out that students' responses indicate that the climate of the speech plays an important role in their understanding of their own public speaking; that their appraisals of their own performance and skills do not necessarily change their attitudes towards public speaking; and that instruction about public speaking, even in the context of improvisation, must be explicitly connected to its intended outcome of public speaking growth. Generally, the result of her study was affirmative. Her students' journals, according to her, showed her many positive consequences from improvisation lessons. Some felt greater confidence, some benefited from practice, and some learned skills that they practiced and used to strengthen their work.

In a study conducted by Behnke and Sawyer (2001) entitled "Patterns of Psychological State Anxiety in Public Speaking as a Function of Anxiety Sensitivity," they confirm existing studies that those who present speeches go through a series of psychological reactions. They say "the general pattern for psychological speech anxiety over the stages of anticipation, confrontation, and adaptation, and release takes the shape of a decelerating monotonic function. This means that these patterns form the dominant mode of response for those who actually present speeches in college classrooms.

Such finding is consistent with an interesting point found by Iba (2007) in her study "Hardiness and public speaking anxiety: problems and practices." She noted that as hardiness (individual's resilience to anxiety-arousing stimuli) goes up, public speaking state anxiety goes down, and vice versa. Specifically, the hardier the individual, the lower his/her anxiety score.

Xuying (2013) made a study correlating peer assessment and attitudes in public speaking. The study has found out that English majors generally hold positive attitudes toward peer assessment in public speaking class because the advantages of doing peer assessment in a public speaking class lie on all one side of students' benefits, which means to practice and improve students' abilities. The researcher recommends that future researchers can helpfully focus on how to assist students in providing useful feedback in the process of PA activities, how to enhance the validity of PA and influences of PA in enhancing students' competence in speaking in English.

Meanwhile, Eisenson et.al. as cited by Aban and Abulencia (2011) believed that despite an abundance of research on the nature causes and cures for stage fright, we still possess few absolute, positive answers which include a) All speakers, the novice and the expert alike, undergo some degree of psychological arousal before or during their speaking efforts; b) Happily, the listener's perceived awareness of emotional tension or disruption is less than the speaker believes is taking place; c) No significant or apparent relationship exists between stage fright and reasoning ability, or the level of intelligence: d) There is no significant relationship between personality traits or aspects of personality, at least as these components are measured or are measurable of standard personality inventories; d) Stage fright is no respecter of sex. Both men and women experience similar kinds of stress, but men are more likely to show overt and obvious manifestations of this state of feeling or emotion than are women; e) Task performance seems to improve under conditions of mild stress; and f) The disruptive influences of stage fright diminish with improved speaking ability, increased experience, and with age. These factors may of course, be interrelated.

## STATEMENT OF THE PROBLEM

Generally, the study attempted to determine the public speaking attitude, apprehension level and oral performance of foreign students of the College of Arts and Sciences.

Specifically, the study sought to answer the following questions:
1. What is the profile of the respondents in terms of:
   1.1 Sex

1.2 Type of school graduated from
1.3 Parents' Highest educational attainment
1.4 Language exposure
2. What is the respondents' attitude towards public speaking?
3. What is the respondents' public speaking apprehension level?
4. What is the level of oral performance of the respondents?
5. Is there a significant difference in the respondents' public speaking attitude, apprehension level and oral performance when grouped according to profile variables?
6. Is there a significant relationship between the respondents' public speaking attitude, apprehension level, and oral performance?

## RESEARCH HYPOTHESES

1. There is no significant difference in the respondents' public speaking attitude, apprehension level and oral performance when grouped according to profile variables.
2. There is a no significant relationship between the respondents' public speaking attitude, apprehension level and oral performance.

## METHODOLOGY

The study employed descriptive-correlational design. Three (3) research instruments were used in the conduct of the study. One was a survey questionnaire developed by James C. McCroskey which is the Personal Report on Public Speaking Anxiety (PRPSA). Such instrument consists of 34 questions measuring feelings associated with giving a presentation and has been reported to be unidimensional. Here, the subjects were asked to indicate the degree to which the statements apply to them by marking whether they strongly agree (1), agree (2), undecided (3), disagree (4), and strongly disagree (5), with 12 statements scored reversely, that is, "Strongly agree" indicating one point and "strongly disagree" indicating five points. The total scores of the scale could range from 34-170. The scale is highly reliable (alpha estimates >.90). The other instrument was a modified attitudinaire developed by Janulevičienė and Kavaliauskienė (2011) revolving on the respondents' attitude before, during and after giving presentations. It consists of 15 statements with 6 statements scored reversely. The third instrument was an oral presentation rubric with three compo-

nents namely delivery, organization and content, and enthusiasm/audience awareness scored on a 4-point scale. The study was conducted at the Carig Campus of Cagayan State University particularly in the College of Arts and Sciences. Since there were only 30 students in the language and communication class, the total enumeration technique was employed. However, only 28 out of 30 students were made subjects of the study due to two students failing to show up during the oral presentation. The profile of the respondents with respect to sex, age, parents' occupation and language used at home, and respondents' attitude towards public speaking and oral performance were analyzed using descriptive statistics such as frequency count and percentage. Likewise, respondents' level of PSA was analyzed by following the scoring procedure indicated in the PRPSA developed by James McCroskey. Finally, the significant difference on the respondents' public speaking attitude, apprehension level and oral performance were analyzed through Analysis of Variance (ANOVA) and t-tests while the relationship between the respondents' public speaking attitude, apprehension level and oral performance were analyzed through Pearson- r correlation.

## RESULTS AND DISCUSSION

### Profile of the Respondents

The table shows the frequency and percentage distribution of respondents according to profile variables. It can be gleaned there is equal representation of respondents as to sex. In terms of type of school graduated from, the study is predominated by those who came from private schools. Additionally, majority of the respondents' parents had received a college diploma. Further, 26 or 92.9 percent of the respondents are always exposed to the English language while only 2 or 7.1 percent are sometimes exposed which implies that the respondents make use of or experience the language in many different spheres including conversations to authorities, teachers and other people, socializations, readings, etc. This just proves that English is a wide-spread second or third language to non-native speakers.

**Table 1. Frequency and Percentage distribution of Respondents' profile variables**

| Variables | Frequency (n=28) | Percentage |
|---|---|---|
| **Sex** | | |
| Male | 14 | 50 |
| Female | 14 | 50 |

| Type of School | | |
|---|---|---|
| Private | 20 | 71.4 |
| Public | 8 | 28.6 |
| **Father's Highest Educational Attainment** | | |
| Doctorate degree | 5 | 17.9 |
| Master's degree | 6 | 21.4 |
| College Graduate | 13 | 46.4 |
| High School Graduate | 4 | 14.3 |
| **Mother's Highest Educational Attainment** | | |
| Doctorate degree | 1 | 3.6 |
| Master's degree | 1 | 3.6 |
| College Graduate | 14 | 50.0 |
| High School Graduate | 8 | 28.6 |
| **Language Exposure** | 4 | 14.3 |
| Always Exposed | 26 | 92.9% |
| Sometimes Exposed | 2 | 7.1% |

## Respondents' Attitude towards Public Speaking

The table reveals that 10 or 35.7 percent of respondents have medium level of attitude, 9 or 32.1 percent have high level of attitude, 8 or 28.6% have medium level of attitude, and only 1 or 3.6 has very low level of attitude. The table further discloses the respondents' public speaking attitude as reflected by the over-all mean of 3.09 with a descriptive interpretation of '***medium level of attitude***'. This implies that the respondents have a negative attitude towards public speaking but is tolerable. This result also verifies the researcher's observation that many of the foreign students are passive and are shying away from classroom oral activities.

**Table 2. Respondents' attitude towards public speaking**

| Interval | Descriptive Value | Frequency (n=28) | Percentage |
|---|---|---|---|
| 4.2 – 5.00 | Very Low Level of Attitude | 1 | 3.6 |
| 3.4 – 4.19 | Low level of Attitude | 10 | 35.7 |
| 2.6 – 3.39 | Medium level of Attitude | 8 | 28.6 |
| 1.8 – 2.59 | High level of Attitude | 9 | 32.1 |
| 1.0 – 1.79 | Very high level of Attitude | 0 | - |

*Over-all Mean = 3.09 ; s.d = 0.73 ; Medium Level of attitude*

## Respondents' Public Speaking Apprehension Level

The table below shows that 14 or 50 percent of the respondents have moderate level of public speaking apprehension, 3 or 10.7 percent have moderately high level and moderately low level of apprehension, respectively, and 4 or 14.3 percent have high and low level of apprehension, respectively. The table further reveals the respondents' public speaking apprehension level. It has an over-all mean of 101.75 with a descriptive interpretation of '***moderate***' level of public speaking apprehension. The result confirms the fact that some, if not all of us, experience a certain level of apprehension. Verderber and Verderber (2007), and other authors such as Witt et.al (2006), (Knauerhaze, 2012), (Grewe & Seurer, 2007) agree that "*almost all have some level of public speaking apprehension*". They say "*public speaking is a common fear to all walks of life,*" and "*that many individuals experience some degree of communication apprehension* or "*fear associated with real or anticipated communication with stressful and anxiety-producing experience*" and *that it represents a cluster of evaluative feelings about speech making.*"

**Table 3. Respondents' Public Speaking Apprehension Level**

| Interval | Descriptive Value | Frequency (n=28) | Percentage |
|---|---|---|---|
| 120 and up | High | 4 | 14.3% |
| 111 – 119 | Moderately High | 3 | 10.7% |
| 93 –110 | Moderate | 14 | 50.0% |
| 85 – 92 | Moderately low | 3 | 10.7% |
| 34 – 84 | Low | 4 | 14.3% |

*Over-all Mean = 101.75 ; s.d = 15.61 ; Moderate level of Apprehension*

## Respondents' Oral Performance

The table reveals that 8 or 28.6 percent of the respondents have both good and fair oral performance whose scores range from 7.51 – 9.75 and 5.26 – 7.50, respectively. Meanwhile, 7 or 25 percent of the respondents garnered an 'excellent' rating whose scores range from 9.76 – 12.0, and 5 or 17.9 percent did poor during the oral performance whose scores range from 3.00 – 5.25 with a descriptive interpretation of 'needs improvement'. Generally, the oral performance of the respondents is rated 'Good' as indicated by the over-all mean of 7.82

**Table 4. Respondents' Oral Performance**

| Interval | Descriptive Value | Frequency (n=28) | Percentage |
|---|---|---|---|
| 9.76 – 12.0 | Excellent | 7 | 25.0% |
| 7.51 – 9.75 | Good | 8 | 28.6% |
| 5.26 – 7.50 | Fair | 8 | 28.6% |
| 3.00 – 5.25 | Needs Improvement | 5 | 17.9% |

*Over-all Mean = 7.82 ; s.d = 2.7 ; Good*

## Comparison on the Respondents' Public Speaking Attitude when Grouped according to Profile Variables

The table reveals that there is significant difference on the respondents' public speaking attitude when grouped according to sex, type of school graduated from, and father's highest educational attainment; and thus, the null hypotheses are rejected. This means that the females have lower levels of attitude than males. This is supported by the probability value of 0.0077 which is lesser 0.05 level of significance. Also, those who graduated from public high schools have lower

level of attitude than those who graduated from private high schools. This is supported the probability value of 0.0102 which is lesser than 0.05 level of significance. Moreover, a surprising result was that those whose fathers have a Master's or doctorate degrees have lower level of attitude than those whose fathers finished College or High school. This is supported by the probability value of 0.0328 which is higher than 0.05 significance level. However, public speaking attitude does not vary significantly when grouped according to mother's educational attainment and language exposure with probability values of 2.0097 and 0.2353, respectively. Thus, for these cases, the null hypotheses are accepted.

Table 5. Comparison on the Respondents' Public Speaking Attitude when grouped according to Profile Variables

| Variables | Computed Value | Probability Value | Interpretation |
|---|---|---|---|
| Sex | 2.8893 | 0.0077* | Significant |
| Type of High School Graduated from | 2.9377 | 0.0102* | Significant |
| Father's Highest Educational Attainment | 3.4392 | 0.0328* | Significant |
| Mother's Highest Educational Attainment | 2.0097 | 0.1267 | Not Significant |
| Language Exposure | 0.2353 | 0.8168 | Not Significant |

*Significant at $\alpha$ = 0.05

**Comparison on the Respondents' Public Speaking Apprehension Level when grouped according to Profile Variables**

The table reveals that there is significant difference on the respondents' public speaking apprehension level when grouped according to sex, type of school graduated from, father's highest educational attainment, and mother's highest educational attainment except for language exposure. In terms of sex, the data implies that females are far more apprehensive than males with the probability value lesser than 0.05 level of significance, and thus the null hypothesis is rejected. This finding negates the result of a study conducted by Eisenson et.al. as cited by Aban and Abulencia (2011) which found out that "men are more likely to show overt and obvious manifestations of apprehension than are women. It is important to note, though, that public speaking apprehension is no respecter of sex. In the case of type of school graduated from, those who finished secondary education in public institutions are rather highly apprehensive about public speaking than those coming from private schools. This is consistent with the attitude that they have towards public speaking. Such finding is explained by the proba-

bility value of 0.0000 which is lesser than 0.05 level of significance. Thus, the null hypothesis is rejected.

Meanwhile, those whose parents earned a doctorate degree or a master's degree have considerably higher level of apprehension than those whose parents finished high school, college and even those who did not finish a standard high school. This is explained by the probability values which are lesser than 0.05 level of significance, and thus the null hypothesis is rejected. A possible explanation for such a finding is that of parents' expectations of their children. This means that those whose parents pursued graduate and post-graduate studies are more pressured than their counterparts since much is expected of them

Table 6. Comparison on the Respondents' Public Speaking Apprehension Level when grouped according to Profile Variables

| Variables | Computed Value | Probability Value | Interpretation |
|---|---|---|---|
| Sex | 6.1770 | 0.0000* | Significant |
| Type of High School Graduated from | 6.8698 | 0.0000* | Significant |
| Father's Highest Educational Attainment | 46.5274 | 0.0000* | Significant |
| Mother's Highest Educational Attainment | 28.1582 | 0.0000* | Significant |
| Language Exposure | 3.6625 | 0.1697 | Not Significant |

*Significant at $\alpha$ = 0.05

**Comparison on the Respondents' Oral Performance when grouped according to Profile Variables**

The table discloses that there is a significant difference on the respondents' oral performance when grouped according to all profile variables. All profile variables have a probability value of 0.0000 which is lesser than 0.05 level of significance. Thus, the null hypotheses are rejected. As regards Sex, females performed better than males. In terms of type of school graduated from, those who graduated from public schools performed better than those who graduated from private schools. In terms of parent's educational attainment, respondents whose parents finished graduate and post-graduate studies performed far better than those whose parents finished college or below. Finally, with regard to language exposure, respondents who are always exposed to the target language performed better as compared to those whose exposure is labeled 'sometimes'. This result affirms one of the findings of Yaikhong and Usaha (2012) which indicated that insufficient or inadequate opportunity and exposure to the lan-

guage causes anxiety and affects speaking performance.

Table 7. Comparison on the Respondents' Oral Performance when grouped according to Profile Variables

| Variables | Computed Value | Probability Value | Interpretation |
|---|---|---|---|
| Sex | 8.4473 | 0.0000* | Significant |
| Type of High School Graduated from | 8.9093 | 0.0000* | Significant |
| Father's Highest Educational Attainment | 61.3887 | 0.0000* | Significant |
| Mother's Highest Educational Attainment | 25.4325 | 0.0000* | Significant |
| Language Exposure | 8.2240 | 0.0000* | Significant |

*Significant at $\alpha$ = 0.05

## Relationship between the Respondents' Public Speaking Attitude and Apprehension Level

The table reveals that public speaking attitude and apprehension level are significantly related with each other. This means that the lower the level of attitude, the higher the level of public speaking apprehension. This corroborates the idea first introduced in the paper that those who possess negative attitude towards speaking or presenting are more likely to become highly apprehensive about speaking itself (www.business trainingdirect.co.uk, 2016). A line exacts this point "Attitude determines your altitude."

Table 8. Relationship between the Respondents' Public Speaking Attitude and Apprehension Level

| Variables | Correlation Coefficient | Interpretation |
|---|---|---|
| Public Speaking Attitude | 0.4585* | Significant |
| Public Speaking Apprehension Level | | |

*Significant at $\alpha$ = 0.05

## Relationship between the Respondents' Public Speaking Attitude and Oral Performance

The table reveals that Public speaking attitude and oral performance are significantly related with each other. It means that the lower the level attitude, the better the oral performance of the respondents. While the result may be quite strange, it can be deduced that the negative attitude they have towards public speaking (which is tolerable) may be facilitative to their oral performance.

Table 9. Relationship between the Respondents' Public Speaking Attitude and Oral Performance

| Variables | Correlation Coefficient | Interpretation |
|---|---|---|
| Public Speaking Attitude | 0.4961* | Significant |
| Oral Performance | | |

*Significant at $\alpha$ = 0.05

## Relationship between the Respondents' Public Speaking Apprehension Level and Oral Performance

The table discloses that the respondents' public speaking apprehension is significantly related with their oral performance. This means that the higher the respondents' level of apprehension, the better the oral performance. This result is unexpected. It negates the results of a study by Tuan and Mai (2015) which suggest that students' feeling of anxiety or nervousness impedes their oral performance abilities and language learning. They also cited Tanveer (2007) when he found out in his study that 'the higher the anxiety, the lower level of performance". It also contradicts Park and Lee's (2005) findings that the higher anxious the students were about speaking, the lower scores they gained on their oral performance. Several studies have examined the relationship between learners' anxiety scores and assessment of their spoken output and significant negative correlations were found out (that is, the higher the anxiety, the poorer the oral performance) (Toth, 2012). Xiangping (2004) also found out in his study that there was a reverse relationship between speaking anxiety and the quality of their oral performance. However, it should be noted that apprehension is not necessarily negative. "Learning proceeds best when the organism is in a state of tension." In fact, it helps to be a little nervous to do your best: if you are lackadaisical about giving a speech, you probably will not do a good job. (Verderber and Verderber, 2007).

Table 10. Relationship between the Respondents' Public Speaking Apprehension Level and Oral Performance

| Variables | Correlation Coefficient | Interpretation |
|---|---|---|
| Public Speaking | 0.9664* | Significant |
| Oral Performance | | |

*Significant at $\alpha$ = 0.05

## CONCLUSIONS

Public speaking apprehension or nervousness is not necessarily negative. Oral performance improves under conditions of mild apprehension. It helps to be a little nervous because the presenter is forced to do his best: if he is lackadaisical about giving a performance, he probably will not do a good job.

## RECOMMENDATIONS

1. Teachers or faculty members should introduce or give more oral activities or speaking drills to students such as classroom debates and discussions, small-group simulations, role playing, etc. to help them gain experience and to boost as well their level of confidence. Teachers should also encourage students to make use of the language in class.
2. Teachers should incorporate in their discussion especially in English speaking classes the nature of public speaking apprehension so they become aware when such apprehension is healthy or not.
3. Teachers should consider and adopt ways or strategies to help them reduce their fears and to help them view oral presentations and public speaking as good avenues to excel academically and to grow personally.

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# HEURISTIC APPROACH: A STRATEGY IN IMPROVING THE COMPETENCY AND ATTITUDE IN PROBLEM-SOLVING

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## ABSTRACT

**The researcher conducted the study to determine whether Heuristic Approach effectively improves the competency and attitude in problem-solving of BEED students at ISCOF MAIN-POBLACION, Barotac Nuevo, Iloilo. Specifically, it sought to describe the respondents' level of competency and attitude in problem-solving before and after using the Heuristic Approach. Likewise, it also tried to determine the differences and relationships in the respondents' level of competency and attitude in problem-solving before and after using the Heuristic Approach. The researcher used a single group pretest and posttest quasi-experimental design in the study. The data was gathered through a questionnaire-checklist, which contains fourteen-item problem-solving tests to determine students' competency level and forty-item tests to assess students' attitudes. The collected data were analyzed using descriptive and inferential statistics. The findings of the study reveal that before using Heuristic Approach, the level of competency in problem-solving of the respondents is "not demonstrated at all" and the attitude is "negative" while after using Heuristic Approach, the level of competency is "proficient" and the attitude is "positive." There are significant differences in the level of competency and attitude in problem-solving of the respondents before and after using the Heuristic Approach. Lastly, there is no significant correlation between the level of competency and attitude in problem-solving of the respondents before and after using the Heuristic Approach. Generally, the results reveal that the Heuristic Approach effectively improves the respondents' competency and problem-solving attitudes. Therefore, the researcher recommended that the module which contains the Heuristic Approach may be used by teachers teaching the subject. The production area of the institution may produce copies for distribution to the students.**

*Keywords: Heuristic Approach, Strategy, Competency, Attitude, Problem Solving*

## INTRODUCTION

Mathematics is one subject that permeates life at any age and in any circumstance. Thus, its value goes beyond the classroom and the school. Mathematics, therefore, must be learned comprehensively and with much depth. So, learning Mathematics should start at the elementary level. It is a great challenge to the teachers teaching the subject (Skinner, P., 2010).

Literature review reveals that Math teachers must be competent in the world of Mathematics teaching. But what does it takes to be skilled in mathematics teaching? According to the National Research Council (2000), if math students are to develop mathematical proficiency, teachers must have a clear vision of the goals and what competence means for specific mathematical content. They need to be able to use their competence flexibly to appraise and adapt instructional materials, represent the mathematical content in a simple and accessible process, plan and conduct instruction, and assess what students are learning.

Elementary Mathematics is a foundation of mathematics at a higher level. It is easy to be an elementary school teacher, but it is challenging to be an excellent elementary school teacher. Leaning on the statements above, the researcher, a mathematics educator, conceptualized this study based on the Knowledge Base Model for Teach-

ing Mathematics. The researcher chose this as the study's focus because, according to the National Research Council (2001), knowledge of the content to be taught is the cornerstone of proficiency training. Thus all teachers must begin with it. There is a substantial body of research on teachers' mathematical knowledge and teachers' understanding of mathematics, which improves mathematics instruction. Teachers teaching Elementary Mathematics should have a high competency level and a positive attitude, especially in problem-solving (Marsh, 2005).

Many mathematics students have low competency and negative attitudes, especially in problem-solving (Koballa, 2008). One of the primary reasons people have trouble with problem-solving is that there is no single procedure that works all the time — each problem is slightly different. Also, problem-solving requires practical knowledge about the specific situation. If you misunderstand either the problem or the underlying condition, you may make mistakes or incorrect assumptions (Polya, 2003).

ISCOF – MAIN POBLACION is offering Bachelor of Elementary Education (BEED). The program prepares the soon to be Elementary Teachers to teach general subjects at the Elementary level, and Mathematics is among them. In the third-year group, the focus is on teaching problem-solving in elementary mathematics. Since there is a lack of instructional materials such as textbooks and modules for this subject, teachers only look for different references found on the internet and books. Despite the different strategies found in the said references, it is not known which one is appropriate in Elementary Mathematics teaching. The researcher would like to develop an instructional material that contains the Heuristic Approach, one of the research-based strategies in teaching problem-solving in Elementary Mathematics. This strategy is an antithesis of the lecture method. It is a method which aims to lead the student by using well-chosen questions to discover facts and information as well as relationships and principles for themselves rather than having these facts and information handed out to the students in the manner of direct information by the teacher (Tejero, E. et al. 2012). Would this strategy in problem-solving help improve BEED students' mathematics competency and attitude at ISCOF MAIN- POBLACION? The researcher would like to validate. Thus, the study was conducted.

## STATEMENT OF THE PROBLEM

This study was conducted to validate whether Heuristic Approach is effective in improving the competency and attitude in Problem-solving in Elementary Mathematics of Third Year Bachelor of Elementary Education (BEED) students at ISCOF MAIN- POBLACION, Barotac Nuevo, Iloilo.

Specifically, it sought to answer the following questions:
1. What is the level of competency and attitude in Problem-solving in Elementary Mathematics of the respondents before and after using the Heuristic Approach?
2. Is there a significant difference in the level of competency in solving Problems in Elementary Mathematics of the respondents before and after using the Heuristic Approach?
3. Is there a significant difference in the attitude in teaching problem-solving in Elementary Mathematics of the respondents before and after using the Heuristic Approach?
4. Are there significant relationships between the level of competency and attitude in teaching problem-solving in Elementary Mathematics of the respondents before and after using the Heuristic Approach?
5. What are the respondents' experiences using the Heuristic Approach in teaching problem-solving in Elementary Mathematics to improve their competency and attitude?

## RESEARCH DESIGN

The one group pretest and posttest design was utilized in this study. In this design, a pretest was given before the intervention. After which, a posttest was again conducted. The pretest A must be the same as the posttest A. A statistical test is used to test for significant differences.

## LOCALE OF THE STUDY

The study was conducted at the College of Education, ISCOF MAIN- POBLACION, an institution of higher learning located 30 km. away from Iloilo's city with a travel time of around 45 minutes. It is one of the campuses of the ISCOF System. The College of Education is a two-story building that can accommodate 500 students, one of the colleges inside the campus with the highest number of students.

## PARTICIPANTS

The study utilized the whole forty–three (43) BEED Third Year students of the College of Education of ISCOF- MAIN POBLACION, Barotac Nuevo, Iloilo as participants of the study.

Most of the participants are female (80%), and only (20%) are male. The participants are taking the course problem-Solving in Elementary Mathematics.

## DATA GATHERING INSTRUMENTS

Part 1, Problem Solving Test. The fourteen-item test includes word problems which can be solved using Heuristic Approach such as a.) Draw a diagram, picture, and models, b.) Find a pattern, c.) Work backward, d.) Act out, d.) Guess and check, e.) Logical reasoning or elimination, f.) Simplifying a problem and g.) Make a table or organized list. This Problem-solving test was used to determine the level of competency of students in teaching problem-solving. A rubric for scoring problem-solving test was used.

The scores were summed up, and the mean scores were computed. The researcher employed the following scale of means and their corresponding interpretations to determine the students' competency in teaching problem-solving.

| Mean Score | Description | Interpretation |
|---|---|---|
| 3.25 – 4.00 | Advanced | Has a very good understanding of the competency |
| 2.50 – 3.24 | Proficient | Has a good understanding of the competency |
| 1.75 – 2.49 | Developing | Has little understanding of the competency |
| 1.00 - 1.74 | Does not demonstrate at all | Has no or very little understanding of the competency |

Part II, a checklist on attitude, was used to gather data on the student's attitudes. It consisted of 40 items, ten items for every four components, namely, self-confidence, motivation, mathematics value, and enjoyment.

The responses to the questions were summed up, and the mean scores were computed. To determine the students' attitude towards problem-solving, the researcher employed the following scale of means and their corresponding interpretations;

| Mean Score | Description | Interpretation |
|---|---|---|
| 3.00 – 5.00 | Positive | students most likely enjoy teaching problem solving |
| 1.00 – 2.99 | Negative | students dislike teaching problem solving |

## DATA GATHERING PROCEDURES

The researcher wrote a letter asking permission to conduct the study and seek the school's approval. The respondents who are the third year BEED students of ISCOF MAIN –POBLACION were informed and oriented about the survey. Before using the Heuristic Approach in teaching problem-solving in Elementary Mathematics, the researcher distributed the prepared questionnaire-a checklist to the respondents to get the respondents' level of competency and attitude in teaching problem-solving in Elementary Mathematics. After the pretesting activities, the intervention was implemented. The researcher introduced the module, which contains the Heuristic Approach in solving problems in Elementary Mathematics. The contents of the module were discussed thoroughly with the respondents until everything was covered. The activities were done from October 2018 to December 2018. The activities in the conduct of Heuristic Approach in teaching problem solving are summarized in the matrix.

Right after the full implementation of the intervention, the post-activity was conducted. The process is done before the intervention was repeated, and the data needed were gathered.

## DATA ANALYSIS PROCEDURES

The data gathered in this study were subject to some computer-processed statistical analysis via the Statistical Package for the Social Sciences (SPSS) Software:

*Frequency*. The frequency was used to determine the number of students in a particular category.

*Percentage*. The percentage was used to find out the portion of students belonging to a particular category.

*Means*. The obtained mean scores from the pretest and posttest were utilized to describe the students' competency and attitude towards teaching problem solving before and after using Heuristic Approach.

*Standard Deviation*. The standard deviation was used to determine the dispersion of the scores from the means.

*Wilcoxon Signed-Rank Test*. The Wilcoxon Signed Rank Test was used to determine the significant mean difference in the students' competency and attitude before and after using Heuristic Approach.

*Spearman rho*. The Spearman rho was employed to determine the significance of the relationship between the students' competency in teaching problem solving and attitude.

The .05 alpha level was used as the criterion for the acceptance and rejection of the null hypothesis.

## FINDINGS

### Level of Competency in Problem Solving of the Respondents before and after Using Heuristic Approach.

Table 1.a shows the level of competency in problem-solving of the respondents before and after using the Heuristic Approach. The results reveal that before using Heuristic Approach, the respondents' level of competency in problem-solving is "does not demonstrate at all" with a mean of 1.47, f = 23, and %= 53.5. This denotes that the respondents dislike teaching problem-solving. They have very poor understanding, experience, and understanding of the different teaching problem-solving strategies in Elementary Mathematics. On the other hand, after using Heuristic Approach, the level of competency in problem-solving in Elementary Mathematics of the respondents is "proficient" with a mean of 2.95, f = 26 and %= 60.5, which simply means the Heuristic Approach is effective.

**Table 1.a. Level of competency in problem-solving of the respondents before and after using the Heuristic Approach.**

| Competency | | Frequency (n=43) | % |
|---|---|---|---|
| Before | | | |
| Does not demonstrate at all | (1.00 – 1.74) | 23 | 53.5 |
| Developing | (1.75 – 2.49) | 20 | 46.5 |
| Proficient | (2.50 – 3.24) | 0 | 0 |
| Advanced | (3.25 – 4.00) | 0 | 0 |
| Mean= 1.47 Does not demonstrate at all. | | | |
| Competency | | Frequency (n=43) | % |
| After | | | |
| Does not demonstrate at all | (1.00 – 1.74) | 1 | 2.3 |
| Developing | (1.75 – 2.49) | 8 | 18.6 |
| Proficient | (2.50 – 3.24) | 26 | 60.5 |
| Advanced | (3.25 – 4.00) | 8 | 18.6 |
| Mean = 2.95 Proficient | | | |

### The attitude in Problem Solving of the Respondents before and after Using Heuristic Approach.

Table 1.b shows the attitude of the respondents in problem-solving before and after using the Heuristic Approach. The results reveal that before using Heuristic Approach, the attitude of the respondents in problem-solving in terms of their self-confidence, motivation, values, and enjoyment is "negative." This simply implies that respondents are: a) not confident to use different methods and techniques of teaching mathematics; b) not motivated to teach mathematics to influence pupils to love mathematics; c) not enjoying teaching mathematics; and d) not thinking that mathematics is beneficial to them. On the other hand, after using Heuristic Approach, the attitude of the respondents in problem-solving in terms of their self-confidence, motivation, values, and enjoyment is "positive," which simply implies that respondents: a) don't have any more problem understanding concepts in mathematics; b) are motivated to teach mathematics because they want to influence pupils to love mathematics; c) they are now willing to lend a hand when their students come to them for help in mathematics because it's beneficial to them; and d) enjoy teaching mathematics because they have already a lot of ideas to share with their pupils. The use of the Heuristic Approach in teaching problem-solving in Elementary Mathematics effectively improves the respondents' attitude.

**Table 1.b Attitude in problem-solving in Elementary Mathematics of the respondents before and after using Heuristic Approach**

| Attitudes | Standard Deviation | Mean | Description |
|---|---|---|---|
| Before | | | |
| Self Confidence | .774 | 1.86 | Negative |
| Motivation | .570 | 2.09 | Negative |
| Value of Mathematics | .504 | 2.28 | Negative |
| Enjoyment | .391 | 2.12 | Negative |
| Mean | .560 | 2.09 | Negative |
| After | | | |
| Self Confidence | .667 | 3.47 | Positive |
| Motivation | .600 | 3.79 | Positive |
| Value of Mathematics | .625 | 3.88 | Positive |
| Enjoyment | .574 | 3.84 | Positive |
| **Mean** | **.616** | **3.74** | **Positive** |

| Scale | Description |
|---|---|
| *1.00 – 2.99* | *Negative* |
| *3.00 – 5.00* | *Positive* |

### Difference in the Level of Competency of the Respondents in Problem Solving in Elementary Mathematics before and after Using Heuristic Approach

Table 2 shows the Wilcoxon Sign – Rank Test results for the difference in the respondents' level of competency in problem-solving before and after using the Heuristic Approach. The results reveal that Heuristic Approach elicits a statistically significant change in the level of competency in problem-solving of the respondents (Z = -5.632, p = .000). This simply implies that Heuristic Approach effectively improves the competency in

problem-solving of the respondents. This affirms what the National Research Council (2001) has said, that what it takes to be competent in Mathematics teaching is to adapt instructional materials that would improve students' proficiency. Furthermore, it also affirms Bonaire's (2003) findings that if students served as an active participant in the learning process, it would develop in them competency, skills, and proficiency necessary in problem-solving. This is the real essence of the Heuristic Approach

Table 2  Wilcoxon Sign – Rank test results for the difference in the level of competency in problem-solving in Elementary Mathematics of the respondents before and after using Heuristic Approach

| Category | Mean | Z | Sig. |
|---|---|---|---|
| Pretest | 1.47 | -5.632 | .000 |
| Posttest | 2.95 | | |

*p < .05, significant at .05 alpha*

## Difference in the Attitude in Problem Solving in Elementary Mathematics of the Respondents before and after using Heuristic Approach.

Table 3 shows the Wilcoxon Sign – Rank test results for the difference in the attitude in teaching problem-solving in Elementary Mathematics of the respondents before and after using the Heuristic Approach.  The results show that Heuristic Approach elicits a statistically significant change in the attitude in teaching problem-solving in Elementary Mathematics of the respondents (Z = -.2.941, p= 003).  This simply implies that Heuristic Approach effectively improves the attitude in teaching problem-solving in Elementary Mathematics of the respondents. The results affirm Leder's (2007) findings that students' positive attitudes towards mathematics appear to decrease as they progress through the school system. Hence, attention needs to be given to finding ways to help tertiary and secondary school students retain positive attitudes towards mathematics. The heuristic approach is the way of helping them.

Table 3  Wilcoxon Sign – Rank test results for the difference in the attitude in problem-solving in Elementary Mathematics of the respondents before and after using Heuristic Approach

| Category | Mean | Z | Sig. |
|---|---|---|---|
| Attitude before | 2.09 | -2.941 | .003 |
| Attitude after | 3.74 | | |

*p < .05, significant at .05 alpha*

## Relationship in the Level of Competency and Attitude in Problem Solving of the Respondents before Using Heuristic Approach.

Table 4.a shows the Spearman Rho- Order Correlation for the relationships in the level of competency and attitude in problem-solving in Elementary Mathematics of the respondents before using the Heuristic Approach. The results reveal that before using Heuristic Approach, there was no correlation between the levels of competency and attitude in problem-solving in Elementary Mathematics of the respondents, r (41) = -.007, p = .647. The result simply implies that the low level of competency has nothing to do with the respondents' negative attitude in teaching problem-solving in Elementary Mathematics, even without using the Heuristic Approach. This is in contrast to Aiken's (2006) findings that the relationship between attitude and achievement is a low but significant correlation.

Table 4.a. Spearman Rho- Order Correlation results for the relationships in the level of competency and attitude in problem-solving of the respondents before using Heuristic Approach

| Category | Attitude N | r | Sig. |
|---|---|---|---|
| Competency | 43 | -.007 | .647 |

*p < .05, significant at .05 alpha*

## Relationship in the Level of Competency and Attitude in Problem Solving of the Respondents after Using Heuristic Approach.

Table 4.b shows the Spearman Rho- Order Correlation for the relationships in the respondents' level of competency and attitude in problem solving after using the Heuristic Approach. After using Heuristic Approach, the results revealed no correlation between the level of competency and attitude in problem-solving in Elementary Mathematics, r (41) = -.170, p = .370. The result simply implied that the high level of competency has nothing to do with the respondents' positive attitude in teaching problem solving without using the Heuristic Approach. The study's result contradicted Fennema and Sherman's (2007) findings that those who viewed mathematics as more useful received higher scores on mathematics achievement tests. This is probably explained by the fact that, in general, pupils who enjoy mathematics are more likely to invest more time and energy in gaining competence in the subject (Schofield, 2008).

Table 4.b. Spearman Rho- Order Correlation results for the relationships in the level of competency and attitude in problem solving of the respondents after using Heuristic Approach

| Category | Attitude N | r | Sig. |
|---|---|---|---|
| Competency | 43 | -.170 | .370 |

*p < .05, significant at .05 alpha*

**Experiences of the Respondents in the Use of Heuristic Approach in Teaching Problem Solving to Improve their Competency and Attitude**.

After the thorough discussions and group presentations of the respondents of the eight Heuristic Approaches in teaching problem-solving in Elementary Mathematics, testimonies of their experiences to improve their competency and attitude were transcribed. The responses reveal that the respondents experienced excitement every time an activity was conducted. According to them, their vocabulary is opened again from the night-long sleep in problem-solving because of the Heuristic Approach. They like the process because of its practicality, easy to comprehend, and the ability to choose a given problem. They report the type of problem could be easily identified and solved by eight Heuristic Approaches. The different exercises given to them sharpened their minds. They opened their hearts to the reality of the importance of problem-solving in their daily - lives. They believe that competency in problem-solving could be improved if a proper and appropriate instructional strategy is used. On the other hand, when respondents were asked how the Heuristic approach improved their teaching problem-solving attitude in Elementary Mathematics, their responses include developing their self-confidence. Problems in understanding concepts in mathematics are solved. They were motivated to teach mathematics because they believed that it could influence pupils to love the subject. The value of mathematics is appreciated. They have learned to appreciate the benefits. And finally, they agree that they already enjoy teaching mathematics because they already have many ideas to share with their pupils. Their apprehensions and fears whenever they encountered problem-solving gradually changed to positive feelings and self-confidence. They were able to discover their creativity and talents and improve their presentations for their classmates to understand well the solutions to the problem. Their participation in every activity helped them develop their interpersonal relationships with their colleagues. They further reveal that they were motivated to enhance their problem-solving capability for their pupil's benefits. They were able to appreciate mathematics' value in finding solutions to every problem they had faced in life. Finally, they believe that using Heuristic Approach could improve their competency and attitude in teaching problem-solving in Elementary Mathematics.

## CONCLUSIONS

In view of the preceding findings, the researcher draws the following conclusions:

1. Students have no understanding and mastery of problem-solving concepts and skills, as demonstrated in their performance before using the Heuristics Approach. They dislike teaching problem-solving. After using the Heuristics Approach, students have gained an excellent understanding and mastery of problem-solving concepts and skills. They enjoy and like teaching problem-solving.
2. The heuristics Approach greatly improved the understanding and mastery of students of the concepts and skills of problem-solving.
3. Likewise, the Heuristics Approach contributed significantly to improving students' outlook, feelings, and enjoyment in teaching problem-solving.
4. Their ability to solve problems in Elementary Mathematics is not related to their self-confidence, motivation, the value of mathematics, and enjoyment in teaching problem solving whether or not using the Heuristics approach.
5. The students said that Heuristic Approach in Problem solving helped them improve their competency and attitude. Their experiences with Heuristic Approach are worth reminiscing.

## RECOMMENDATIONS

From the conclusions, the following recommendations are given:

1. Since Heuristic Approach effectively improves the level of competency and attitudes in teaching problem-solving in Elementary Mathematics of the respondents, it is recommended that the module containing the Heuristic Approach may be used by teachers teaching the subject. The production area of the institution may produce copies for distribution to the students.
2. The significant difference in the level of competency in teaching problem-solving in Elementary Mathematics of the respondents before and after using the Heuristic Approach means a significant improvement. These improvements could not come too late if the Heuristic Approach is practiced in
3. Elementary level. So, it is recommended that Elementary Teachers may be used the Heuris-

tic Approach in teaching elementary mathematics and that students must practice and implement what they had learned.

4. The school may implement programs in mathematics that could develop students' positive attitudes towards mathematics. Mathematics teachers may find ways to develop students' positive attitudes in mathematics by making instructional materials such as Heuristic approaches.

5. Since the result of the study revealed that attitude has nothing to do with the competency in teaching problem-solving in Elementary Mathematics, it is recommended that Mathematics Teachers focus on the instructional materials they are using. They are maybe creative and resourceful enough in the use of instructional materials. Research-based strategies such as Heuristic Approach is recommended for use.

6. The Elementary Teachers may utilize the different Heuristic approaches effectively in problem-solving by giving students appropriate exercises to experience how the heuristic Approach may gradually change their competency and attitude in mathematics.

## ACKNOWLEDGEMENT

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# STRENGTHENING AWARENESS AND PRACTICES OF NURSING PERSONNEL ON INPATIENT FALL PREVENTION PROGRAM IN SELECTED HEALTH CARE FACILITIES IN BATANGAS PROVINCE

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## ABSTRACT

The study aimed to assess and strengthen the perceived awareness and practices on fall prevention program among nursing personnel in various health care facilities in the Province of Batangas. The researchers conducted a descriptive-correlational study in selected government and private institutions using a pre-tested questionnaire administered to 658 nursing personnel. The study revealed that the nursing personnel agreed that there are intrinsic and extrinsic factors that can predispose patients to fall. Based on the study, majority of respondents were aware and often practiced the evidenced based fall prevention strategies. The result showed a significant relationship on the level of awareness and practices on fall prevention programs. It implies that the practice on fall prevention program of the nursing personnel is moderately to highly associated to their level of awareness on policy and procedures, data collection and analysis, staff training and environment and equipment safety. Furthermore, the nursing personnel profiles namely age, highest educational attainment, area of specialization, current job position, length of service and training have significant difference with perceived awareness and practices on fall prevention. Lastly, the study would like to propose an improvement framework to strengthen the existing inpatient fall prevention program for the consideration of the institution to prevent fall related cases as well as safety of clients.

## INTRODUCTION

The World Health Organization (WHO) (2018) issued facts showing that a significant number of patients are harmed during health care, either resulting in permanent injury, increased length of stay in health care facilities, or even death. In October 2016, hospital industries launched a patient safety programme urging WHO to pay the closest possible attention to the problem of patient safety. Its establishment underlined the importance of patient safety as a global health-care issue. Each year, WHO's patient safety delivers a number of programmes covering systemic and technical aspects to improve patient safety around the world.

Patient safety is the absence of preventable harm to a patient and reduction of risk of unneces-sary harm associated with health care to an acceptable minimum (WHO,2018). It has been increasingly recognized as an issue of global importance .The hospital as a health care provider must consider and ensure patient safety. It is an organization with high risk of incidents involving patient safety caused by human error (Cameron, 2017). There is a knowledge/ awareness gap regarding sustainability between the implementation and maintenance phases of these fall prevention programs. A fall is defined as a sudden, uncontrolled, unintentional, downward displacement of the body to the ground or other object, excluding falls resulting from violent blows or other purposeful actions (Dykes, 2016).Globally, patient falls are a major public health problem on patient safety and are a major concern for any hospital, since patients are often at their most vulnerable

and confused while hospitalized. According to the Joint Commission's Sentinel event (2018), falls with serious injury are consistently among the first of the top 10 sentinel events reported to sentinel event database.

Approximately 63 percent of these falls resulted in death, while 28percent of the patients have bruises and minor injuries, 11.4percent have severe soft tissue wounds, 5 percent have fractures, and around 2 percent have head trauma, which can in turn lead to subdural hematoma, long-term disability (Morgan, 2017). In the Philippines, trauma remains one of the leading causes of death in the country despite the increased availability of life-saving equipment and ambulances in most hospitals (Montemayor,2018). According to the latest data of the Department of Health (DOH)(2018), death due to accidents is fifth among the ten causes of mortality among Filipinos. Around 36,329 people died from all forms of accidents in 2017, the fall rate in men 2.8 / person /year / and in women 1.49 falls per person / year This figure translates to 38.6 percent rate for every 100,000 Filipinos.

## OBJECTIVES OF THE STUDY

Thus, the purpose of this research is to strengthen nursing personnel awareness on fall risk factor, prevention and practices. Also through this research, the researchers aimed to increase nursing personnel' attention regarding falls and provide them with basic information to reinforce fall precaution activities. In order to meet these purposes, the study has the following objectives:

1. Identify the profile of sampled nursing personnel;
2. Determine the fall risks factors among patients in health care facilities;
3. Assess the perceived awareness and practices of nursing personnel on evidence-based fall prevention program;
4. Analyse the significant relationship between nursing personnel awareness and practices on fall prevention program;
5. Determine the significant difference between the profile of nursing personnel and the perceived awareness and practices on fall prevention programs; and
6. Propose a prevention framework to strengthen the existing fall prevention program for the institutions' consideration.

## METHODOLOGY

This study assesses the fall prevention perceived awareness and practices among nursing personnel in various healthcare facilities in the Province of Batangas as basis for proposing a fall prevention framework for patients' safety. The researchers employed the descriptive-correlational method which involved the use of survey/ normative approach in data collection. The study referred to the present nursing personnel of selected private and government healthcare institutions in the Province of Batangas. The nursing personnel included were 500 staff nurses, 47 nurse managers, 28 midwives and 83 nursing aides who are directly involved in the care of clients admitted in the institutions. The researchers distributed the questionnaire to 93percent of the total population of nursing personnel in the different institutions or a total of 658 respondents out of 705 total population. The health care facilities were composed of seven private and four district or government hospitals. These institutions were selected based on their proximity and the suggestions from the health experts on fall prevention. The statistical test used in the study was Pearson R correlational analysis, T-Test and Analysis of variance or ANOVA using statistical package for social science or SPSS version 22 as the program. Convenience and purposive sampling were utilized in the study to determine the proportion of the target population and on the criteria to be met by the respondents.

## FINDINGS OF THE STUDY

**Profile of Respondents**. Table 1 presents the profile of nursing personnel in terms of: age; gender; highest educational attainment; current job position; length of service; area of specialization; and training in fall prevention

Table 1.Profile of sampled nursing personnel

| Age | Frequency | Percentage |
|---|---|---|
| 18-25 years old | 140 | 21.3 |
| 26-33 years old | 367 | 55.77 |
| 34-41 years old | 78 | 11.85 |
| 42-49 years old | 47 | 7.14 |
| 50-5 years old | 15 | 2.27 |
| 58-65 years old | 11 | 1.67 |
| *Gender* | Frequency | Percentage |
| Male | 140 | 21.3 |
| Female | 518 | 78.7 |
| *Highest Educational Attainment* | Frequency | Percentage |
| Diploma/Certificate | 92 | 14.0 |
| Bachelor's Degree | 515 | 78.3 |
| Master's Degree | 47 | 7.1 |
| Doctorate Degree | 4 | 0.6 |

| Current Job Position | Frequency | Percentage |
|---|---|---|
| Staff Nurse | 500 | 75.98 |
| Nurse Managers | 47 | 7.1 |
| Registered Midwife | 28 | 4.3 |
| Nursing Aide | 83 | 12.6 |
| **Length of Service** | **Frequency** | **Percentage** |
| less than 1 year | 137 | 20.8 |
| 1-5 years | 324 | 49.2 |
| 6-10 years | 111 | 16.9 |
| 11-15 years | 45 | 6.8 |
| 16 years and above | 41 | 6.2 |
| **Area of Designation** | **Frequency** | **Percentage** |
| Ward | 366 | 55.6 |
| IMCU/NICU | 51 | 7.8 |
| OR/DR/PACU | 93 | 14.1 |
| ICU/CCU | 39 | 5.9 |
| Hemo-Dialysis Unit | 29 | 4.4 |
| Outpatient/ER | 71 | 10.8 |
| Others | 9 | 1.4 |
| **Training** | **Frequency** | **Percentage** |
| With Training | 111 | 16.87 |
| Without Training | 547 | 83.13 |

*relative frequency is computed based on total respondents (n=658)

## Fall Risk Factors

Table 2 reveals the mean responses of nursing personnel on fall risk factors as to intrinsic and extrinsic. There are eleven intrinsic and nine extrinsic risks factors identified that can predispose to patients' fall.

**Table 2. Mean responses of fall risk factors as to intrinsic and extrinsic patient fallers**

| Intrinsic risk factors of patient fallers | Mean | Verbal Interpretation |
|---|---|---|
| 1. The client has previous history of falls. | 3.254 | Agree |
| 2. The client has cognitive Impairment. | 3.325 | Agree |
| 3. The client has balance disorders | 3.413 | Agree |
| 4. The client has neuromuscular and skeletal disorders. | 3.457 | Agree |
| 5. The client has visual and hearing impairments. | 3.467 | Agree |
| 6. The client has dizziness /postural hypotension. | 3.508 | Strongly Agree |
| 7. The client has confusion and impulsive behaviours. | 3.427 | Agree |
| 8. The client has taken medication like anxiolytics drugs. | 3.439 | Agree |
| 9. The client has age related changes. | 3.426 | Agree |
| 10. The client has altered elimination. | 3.231 | Agree |
| 11. The client has gait strength balance deficit. | 3.473 | Agree |
| **Overall Mean** | **3.402** | **Agree** |

| Extrinsic Factors of fallers | Mean | Verbal Interpretation |
|---|---|---|
| 1. The client use an open foot wears. | 2.964 | Agree |
| 2. There is lack of adequate lighting in the room | 3.359 | Agree |
| 3. The use of physical restraints. | 3.236 | Agree |
| 4. The distance of the bed to the toilets | 3.293 | Agree |
| 5. Inappropriate placements of furniture in the | 3.331 | Agree |
| 6. Wet floors | 3.441 | Agree |
| 7. Irregular floor in the room | 3.392 | Agree |
| 9. The use of ambulation aids | 3.337 | Agree |
| 10. Defective stretchers and side rails | 3.419 | Agree |
| **Overall Mean** | **3.308** | **Agree** |

Table 2 shows the mean responses of fall as to the intrinsic and extrinsic risk factors of clients, with an overall mean of 3.402 for the intrinsic and 3.308 for the extrinsic risk factors and a verbal interpretation of agree .This result could be attributed to the fact that there are precipitating factors that could be responsible for patients' to fall. On the intrinsic factors, the result shows that the predisposing factors related to patients' fall were if the patient has dizziness / postural hypotension and with visual and hearing impairments with weighted mean of 3.508 and 3.46 respectively. While in the extrinsic factors, wet floors (WM=3.44) and defective stretcher and side rails (WM =3.41) were the causes of patient falls.

## Perceived Awareness and Standardized Practices of Nursing Personnel on Fall prevention Program

**Perceived Awareness**: Table 3 illustrates the nursing personnel perceived awareness on fall prevention programs as to ten policies and procedures. The respondents' perceived awareness on fall prevention program among inpatients as to policies and procedures earned a composite mean of 2.539 and a verbal interpretation of aware. Specifically, the nursing personnel were aware that the administration of institutions has appointed a nurse safety officer as fall team leader and resource persons for fall risk assessment and that the institution has updated policies and procedures for a comprehensive patient safety fall prevention program with weighted mean of 2.88 and 2.79, respectively. Further, these personnel were slightly aware that there is adequate staffing for team leader to spend 8 hours/week and team to meet for 60 minutes/month (WM =2.30) and the institution has a "no blame/no shame environment with honest investigation and reporting by staff and there is a monthly fall team meeting using ground rules, leader, timekeeper, and recorder (WM =2.40)

**Table 3: Mean responses of awareness on fall prevention programs as to policy and procedures**

| Policies and Procedures for Patients Fall Prevention | Mean | Verbal Interpretation |
|---|---|---|
| 1. The institution has updated policies and procedures for a comprehensive patient safety fall prevention program. | 2.796 | Aware |
| 2. The administration of institutions has appointed a nurse safety officer as fall team leaders and resource persons for fall risk assessment. | 2.888 | Aware |
| 3. The institution has selected staff members for interdisciplinary fall team. | 2.543 | Aware |
| 4. There is a monthly fall team meeting using ground rules, leader, timekeeper, and recorder. | 2.403 | Slightly Aware |

| | | |
|---|---|---|
| 5. The High-level managers attend team meetings periodically and monitor falls data at least quarterly. | 2.429 | Slightly Aware |
| 6. The institution has a " no blame/no shame environment with honest investigation and reporting by staff " | 2.403 | Slightly Aware |
| 7. The institution has updated policies and procedures for a comprehensive patient safety fall prevention program. | 2.296 | Slightly Aware |
| 8. There is adequate staffing for team leader to spend 8 hours/week and team to meet for 60 minutes/month. | 2.309 | Slightly Aware |
| 9. There is available budget/funds for adaptive equipment and environmental modifications in the institution | 2.676 | Aware |
| 10. Regular employee fall orientation materials are available to emphasize importance of hospital commitment to patient safety. | 2.644 | Aware |
| **Over all mean** | **2.539** | **Aware** |

**Table 4. Mean responses of fall prevention program as to the perceived awareness on data collection and analysis**

| Data Collection and Analysis | Mean | Verbal Interpretation |
|---|---|---|
| 1.There is an accurate completion of fall incident report form by all staff | 2.708 | Aware |
| 2. There is a regular monthly falls analysis by location and time of fall shift and day of week type of injury in the institution. | 2.392 | Slightly Aware |
| 3. The monthly falls analysis is computed as falls/1,000 patient-days. | 2.149 | Slightly Aware |
| 4. There is a feedback about falls related incidents to direct care staff each month. | 2.498 | Slightly Aware |
| 5. There is falls risk assessment data that trended every 6 months or more in the institution. | 2.302 | Slightly Aware |
| **Over all mean** | **2.410** | **Slightly Aware** |

Table 4 presents the mean responses on fall prevention program as to data collection and analysis with an over-all mean of 2.410 and verbal interpretation of slightly aware. Based on the table, the nursing personnel were aware that there is an accurate completion of fall incident report form by all staff with weighted mean of 2.70. Further, the nursing personnel were slightly aware that there is a feedback about falls related incidents to direct care staff each month and there is a regular monthly falls analysis by location and time of fall shift and day of week type of injury in the institution with weighted mean of 2.49 and 2.39 respectively.

**Table 5. Mean responses of fall prevention awareness on staff training/ seminars on fall prevention and information for patients and families**

| Staff Training/ Seminars on Fall Prevention and Information for Patients and Families | Mean | Verbal Interpretation |
|---|---|---|
| 1.There is a continuing education programs on fall prevention during new employee orientation and training. | 2.553 | Aware |
| 2. There is an annual in-service training on fall prevention for all staff. | 2.324 | Slightly Aware |

| | | |
|---|---|---|
| 3. There are available staff education materials on fall prevention , including hospital policies and procedures fall risk factors and consequences of falls High-risk | 2.637 | Aware |
| 4. There is a well disseminated policies and procedures on clients with high fall risk like those taking medications, sleep hygiene measures for management of anxiety ,low blood pressure precautions, low vision precautions, safety during transfer, ambulation, and wheelchair use | 2.809 | Aware |
| 5. There is a close monitoring on clients with unsafe behaviours and those using monitoring devices, environment and equipment, safety hazards. | 3.043 | Aware |
| 6. All nurses have training in a fall response system that includes immediate evaluation and increased monitoring of patient Investigation of fall circumstances. | 2.705 | Aware |
| 7.There is reporting and documentation of fall Immediate intervention within first 8 hours | 2.804 | Aware |
| 8. The institution has an information strategy for families and patients on fall risk reduction. | 2.444 | Slightly Aware |
| 6. The nursing and non- nursing staff are given information about the program and their roles in fall prevention. | 2.652 | Aware |
| **Over all mean** | **2.663** | **Aware** |

Table 5 presents the mean responses on fall prevention program perceived awareness as to staff training/seminars on fall prevention and information for patients and families with over all mean of 2.66 and verbal interpretation of aware. Based on the table, the nursing personnel were aware that there is a close monitoring on clients with unsafe behaviours and those using monitoring devices, environment and equipment, safety hazards(WM=3.04), there is a well disseminated policies and procedures on clients with high fall risk like those taking medications, sleep hygiene measures for management of anxiety, low blood pressure precautions, low vision precautions, safety during transfer, ambulation, and wheelchair use (WM =2.809), and there is reporting and documentation of fall Immediate intervention within first 8 hours(2.804). On the other hand, the nursing personnel were slightly aware that the institution has an information strategy for families and patients on fall risk reduction and here is an annual in-service training on fall prevention for all staff with weighted mean of 2.44 and 2.32 respectively.

**Table 6. Mean responses of fall as to the awareness of fall prevention programs as to environment and equipment safety**

| Environment and equipment safety | Mean | Verbal Interpretation |
|---|---|---|
| 1.There is a regular inspection of all resident rooms and bathrooms for safety problems, including: clutter poor or insufficient lighting, unstable furniture, hard-to-reach personal items and unsafe flooring Foot care and footwear | 3.049 | Aware |

| | | |
|---|---|---|
| 2. All staff are trained to inspect and report environmental and equipment safety problems. | 2.802 | Aware |
| 3. The repair of reported safety problems in a timely manner are done by maintenance staff. | 3.088 | Aware |
| 4. There is an Inspection and repair of all wheelchairs, canes, and walkers every 6 months | 3.116 | Aware |
| 5. Communications and inspections documented for on-going monitoring and accountability are done regularly in the institution. | 3.103 | Aware |
| **Over all Mean** | **3.032** | **Aware** |

Table 6 presents the mean responses on perceived awareness on fall prevention program as to environment and equipment safety with over all mean of 3.03 and verbal interpretation of aware. Based on the table, the nursing personnel were aware that there is an inspection and repair of all wheelchairs, canes, and walkers every 6 months, that communications and inspections documented for on-going monitoring and accountability are done regularly in the institution and that the repair of reported safety problems in a timely manner are done by maintenance staff . These items earned a weighted mean of 3.11,3.10, 3.08, respectively

**Practices**.Table7 presents the 16 standardized fall prevention practices performed by nursing personnel

**Table 7. Mean responses on standardized fall prevention practices**

| Standardized Fall Prevention Practices | Mean | Verbal Interpretation |
|---|---|---|
| 1 Comprehensive assessment of clients' pain levels using a pain-assessment scale (if staff other than nurses) is doing the rounds and the patient is in pain, report immediately so the patient does not have to use the call light for pain medication). | 3.392 | Often Practiced |
| 2 Place PRN or as needed medications on registered nurses (RN's) scheduled list of things to do for clients and offer the dose when due. | 3.427 | Often Practiced |
| 3. Offer toileting assistance. | 3.290 | Often Practiced |
| 4. The nurse checks if the client is using correct footwear (e.g., specific shoes/slippers, non-skid socks). | 3.074 | Often Practiced |
| 5. There is a regular checking of the clients bed if it is in locked position. | 3.354 | Often Practiced |
| 6. Placing hospital bed in low position when patient is resting and asking if client needs to be repositioned and if comfortable. | 3.350 | Often Practiced |
| 7. Making sure the call light/call bell button is within the patient's reach and can demonstrate its use. | 3.030 | Often Practiced |
| 8. Putting the telephone within the patient's reach. | 3.157 | Often Practiced |
| 9. Placing the TV remote control and bed light switch within the patient's reach. | 3.167 | Often Practiced |
| 10. Position the bedside table next to the bed or across bed or within clients reach. | 3.331 | Often Practiced |
| 11. Putting the tissue box and water within the patient's reach. | 3.201 | Often Practiced |
| 12.Prior to leaving the room, the nurse asks the client what he or she can do for them | 2.919 | Often Practiced |
| 13.Telling the client that a member of the nursing staff (use names on white board) will be back in the room to assist them in their needs. | 3.345 | Often Practiced |

| | | |
|---|---|---|
| 14. The nurse orients and familiarizes the client with the hospital environment. | 3.347 | Often Practiced |
| 15. Making sure that each hospital have bed side rails and sturdy handrails in patient bathrooms, room, and hallway. . | 3.445 | Often Practiced |
| 16. The nurse follows the safe patient handling practices for fall prevention. | 3.482 | Often Practiced |
| **Overall Mean** | **3.277** | **Often Practiced** |

Table 7 demonstrates the mean responses as to standardized fall prevention practices with over all mean of 3.27 and verbal interpretation of often practiced. Based on the table, the nursing personnel often practiced the fall prevention practices namely: the nurse follows the safe patient handling practices for fall prevention(WM= 348), makes sure that each hospital has bed side rails and sturdy handrails in patient bathrooms, room, and hallway(WM=3.44),places PRN or as needed medications on RN's scheduled list of things to do for clients and offer the dose when due (WM=3.42), Making sure the call light/call bell button is within the patient's reach and can demonstrate its use (3.03) and prior to leaving the room, the nurse asks the clients what he or she can do for them(2.91).

**Relationship between the Nursing Personnel Perceived Awareness and the Practices on Fall Prevention Program**

Table 8 shows the result of significant relationship between awareness and practices among nursing personnel on fall prevention program. The independent and the dependent variables considered in the study were the perceived awareness and practices on fall prevention program. These two were tested to determine their contribution to the fall risk assessment. As shown in Table 8, the four independent perceived awareness variables have significant relationship on the nursing personnel practices of fall prevention namely:policy and procedures on fall prevention (R= .856), data collection and analysis(R=.701), staff training anf seminar (R=.855) and equipment and environment safety (R=.925). Thus, the study accepted the hypothesis with probability value of <.001.

**Table 8.Correlational relationship between the nursing personnel perceived awareness and practices on fall prevention program**

| Independent-Dependent Variable | Pearson Correlation | p-value | Significance |
|---|---|---|---|
| Policy and Procedures for Fall Risk Assessment – Fall Practices | 0.856 | <0.001 | Significant |
| Data Collection & Analysis – Fall Practices | 0.701 | <0.001 | Significant |
| Staff Training/Seminars – Fall Practices | 0.855 | <0.001 | Significant |
| Environment & Equipment Safety – Fall Practices | 0.925 | <0.001 | Significant |

*Correlation is significant at 0.01 level*

Based on Table 8 there is a positive correlation between the perceived level of awareness and practices of falls prevention program . It implies that the practice on fall prevention program of nursing personnel is moderately to highly associated to their level of awareness on policy and procedures, data collection and analysis, staff training and environment and equipment which showed significance statistically ( $p<0.01$).That is, the higher the level of awareness of nursing personnel on fall prevention the better are the practices of the nursing personnel on fall prevention program.

**Significant Difference between the Nursing Personnel Profile and the Perceived Awareness and Practices on Fall Prevention Program**

Table 9 shows the significant difference between nursing personnel profile and perceived awareness and practices on fall prevention program. As seen in the table, there is a significant mean difference between participants profile grouped by age range, highest educational attainment, current job position, length of service , area of specialization , and training for fall prevention and perceived awareness. Gender has no significant difference to perceived awareness on fall prevention. Thus, the study accepted the hypothesis with probability value of <.001.

**Table 9. Significant Difference Between the Nursing Personnels' Profile and the Perceived Awareness on Fall Prevention Program.**

Dependent Variable: Awareness

| Independent Variable | Computed Value | p-value | Significance | Comparison Groups | Mean Difference | Standard Error |
|---|---|---|---|---|---|---|
| Age | 18.846 | <0.001 | Significant | 18-25 years old & 26-33 years old | 0.571 | 0.078 |
| | | | | 18-25 years old & 34-41 years old | 1.100 | 0.111 |
| | | | | 18-25 years old & 50-55 years old | 0.734 | 0.214 |
| | | | | 18-25 years old & 58-65 years old | 0.932 | 0.246 |
| | | | | 26-33 years old &34-41 years old | 0.529 | 0.098 |
| | | | | 34-41 years old & 42-49 years old | -0.932 | 0.145 |
| Gender | 1.594 | 0.111 | Not Significant | | | |
| Education | 133.785 | <0.001 | Significant | Diploma/Certificate & Bachelor's Degree | -1.238 | 0.084 |
| | | | | Diploma/Certificate & Master's Degree | -1.041 | 0.132 |
| Position | 37.691 | <0.001 | Significant | Staff Nurse & Nurse Manager | 1.142 | 0.117 |
| | | | | Staff Nurse & Registered Midwife | 1.013 | 0.149 |
| | | | | Staff Nurse & Nurse Aide | 0.368 | 0.091 |
| | | | | Staff Nurse & Others | 1.207 | 0.293 |
| | | | | Nurse Manager & Nursing Aide | -0.774 | 0.140 |
| | | | | Registered Midwife & Nursing Aide | -0.645 | 0.168 |
| Service | 107.715 | <0.001 | Significant | Less than 1 year & 1-5 years | -0.997 | 0.068 |
| | | | | Less than 1year & 11-15 years | 0.417 | 0.114 |
| | | | | 1-5 years & 6-10 years | 0.827 | 0.072 |
| | | | | 1-5 years & 11-15 years | 1.414 | 0.105 |
| | | | | 1-5 years & 16 years-above | 1.285 | 0.110 |
| | | | | 6-10 years & 11-15 years | 0.587 | 0.117 |
| | | | | 6-10 years & 16 years | 0.458 | 0.121 |
| | | | | 11-15 years & 16 years-above | -0.129 | 0.143 |
| Area | 21.986 | <0.001 | Significant | Ward & IMCU/NICU | 1.064 | 0.117 |
| | | | | Ward & OR/DR/PACU | 0.448 | 0.091 |
| | | | | Ward & ICU/CCU | 0.770 | 0.131 |
| | | | | Ward & Outpatient/ER | 0.395 | 0.101 |
| | | | | Ward & Others | 1.142 | 0.263 |
| | | | | IMCU/NICU & OR/DR/PACU | -0.616 | 0.136 |
| | | | | IMCU/NICU &Hemo-dialysis | -0.964 | 0.181 |
| | | | | IMCU/NICU & Outpatient/ER | -0.670 | 0.143 |
| Training | -16.695 | <0.001 | Significant | | | |

The table showed the significant difference of the nurses' profile to awareness on fall prevention program which showed statistical significance according to comparison groups by age, highest educational attainment, length of experience, current job position, area of specialization. It implies that comparison of the age groups of nurses has significant difference on awareness on fall prevention. The ages 18 to 25 when compared to 26 to 33 years and to other age groups shows that whatever age groups , young or old, there is significant difference on their level of awareness on fall prevention program. While, comparison of the significant difference of highest education attainment from diploma to bachelors degree and masteral degree showed significant difference as well. The level of education attainment presented significant difference on awareness on fall prevention program.

**Table 10. Significant difference between nursing personnel profile and practices on fall prevention program (Dependent Variable: Practice)**

| Inde-pendent Variable | Com-puted Value | p-value | Signifi-cance | Comparison | | |
|---|---|---|---|---|---|---|
| | | | | Groups | Mean Differ-ence | Stand-ard Error |
| Age | 14.585 | <0.001 | Signifi-cant | 18-25 years old & 26-33 years old | 0.374 | 0.070 |
| | | | | 18-25 years old & 34-41 years old | 0.758 | 0.100 |
| | | | | 18-25 years old & 58-65 years old | 1.289 | 0.221 |
| | | | | 26-33 years old & 34-41 years old | 0.384 | 0.088 |
| | | | | 26-33 years old & 42-49 years old | -0.414 | 0.109 |
| | | | | 26-33 years old & 58-65 years old | 0.915 | 0.216 |
| | | | | 34-41 years old & 42-49 years old | -0.800 | 0.130 |
| | | | | 42-49 years old & 58-65 years old | 1.329 | 0.236 |
| Gender | 1.258 | 0.209 | Not Sig-nificant | | | |
| Educa-tion | 73.480 | <0.001 | Signifi-cant | Diploma/Certificate & Bachelor's Degree | -1.343 | 0.067 |
| | | | | Diploma/Certificate & Master's Degree | -1.103 | 0.106 |
| Position | 31.221 | <0.001 | Signifi-cant | Staff Nurse & Nurse Manager | 1.030 | 0.106 |
| | | | | Staff Nurse & Registered Midwife | 0.749 | 0.134 |
| | | | | Nurse Manager & Nursing Aide | -0.869 | 0.126 |
| | | | | Registered Midwife & Nursing Aide | -0.588 | 0.151 |
| Service | 77.082 | <0.001 | Signifi-cant | Less than 1 year & 1-5 years | -0.826 | 0.063 |
| | | | | 1-5 years & 6-10 years | 0.640 | 0.068 |
| | | | | 1-5 years & 11-15 years | 1.093 | 0.099 |
| | | | | 1-5 years & 16 years-above | 1.000 | 0.103 |
| | | | | 6-10 years & 11-15 years | 0.453 | 0.110 |
| | | | | 6-10 years & 16 years-above | 0.358 | 0.114 |
| Area | 23.791 | <0.001 | Signifi-cant | Ward & IMCU/NICU | 0.819 | 0.102 |
| | | | | Ward & ICU/CCU | 0.810 | 0.115 |
| | | | | Ward & Others | 1.536 | 0.231 |
| | | | | IMCU/NICU & OR/DR/PACU | -0.614 | 0.119 |
| | | | | IMCU/NICU &Hemo-Dialysis | -0.903 | 0.159 |
| | | | | IMCU/NICU & Outpatient/ER | -0.670 | 0.126 |
| | | | | OR/DR/PACU & ICU/CCU | 0.605 | 0.131 |
| | | | | OR/DR/PACU & Others | 1.33` | 0.239 |
| | | | | ICU/CCU &Hemo-dialysis | -0.894 | 0.18 |
| | | | | Hemo-dialysis & Others | 1.620 | 0.261 |
| Training | -16.624 | <0.001 | Signifi-cant | | | |

Table 10 shows the significant difference between the nursing personnel profile and the practices. The findings revealed significant difference on fall prevention program. As seen in the table, there is a significant mean difference between participants profile grouped by age range, highest educational attainment, current job position, length of service , area of specialization , and training for fall prevention and their practices. Gender has no significant diffrence to perceived awareness on fall prevention. Thus, the study accepted the hypothesis with probability value of <.001.Based on the findings, the significance of comparing the nursing personnel profile to practices indicates the maturity level of various age groups to administer quality patient care to prevent fall injuries.

**Proposed Fall Prevention Framework to strengthen the Inpatient Fall Prevention Program for Clients Safety.** The proposed prevention framework for inpatient fall prevention program is offered for institutions' consideration.. The framework when tried and carried out may strengthen the existing fall prevention program. It may also serve as an augmentation to prevent or lessen cases of falls among patients. The goal of the framework is to enhance the patient safety practices of institutions which could prevent additional harm to patients while they are hospitalized .

## CONCLUSIONS

Based on the results of the study, the following conclusions were drawn:
1. The nursing personnel are composed mostly of female staff nurses with Bachelor's Degree, in their middle adulthood, regularly employed for the past 1 to 5 years in various healthcare institutions in the Province of Batangas, assigned in the hospital general ward and without relevant training on fall prevention program.
2. The nursing personnel agree with the intrinsic and extrinsic factors that could predispose to fall among inpatients.
3. The nursing personnel are aware fall prevention program and often practice most of the standardized fall prevention practices.
4. The practices of nursing personnel to fall prevention program are associated to their level of awareness on policy and procedures, data collection and analysis, staff training and environmental and equipment safety.

5. The profile of nursing personnel age, highest education attainment, current job position, length of service area of specialization and training have significant difference on perceived awareness and practices on fall prevention program with p value of <0,001.Gender has no significant value.
6. A proposed fall prevention framework for inpatient fall prevention program for patient safety  is offered to strengthen the existing fall prevention program among inpatients for the institution's considerations.

## RECOMMENDATIONS

From on the results and conclusions derived from the study, the researchers recommend the following:
1. Hospital directors through collaboration with different units and health care workers in the institution may establish a process for assessing each hospitalized patient for the risk of falling that will safeguard not only the patients but family, visitors and hospital staff as well. Furthermore, annual fall-risk assessment in a timely manner may also be conducted.
2. Hospital Personnel of each department or unit may re-examine whether their fall assessment tools can thoroughly assess, screen and identify risks of falls. Also, they may include in the hospital manual the conduction of pre and post-fall follow-up assessment and management.
3. Nursing Department of health care facilities may conduct regular monitoring of the nursing personnel proactive and anticipative roles in fall prevention of patients.  Regular and continuous orientation, trainings and seminars of experienced and newly hired nursing personnel on universal fall precaution policies and safe handling practices of patients may be conducted regularly.
4. Future researchers may take the initiative to conduct a follow up study on fall prevention that will include thorough patient risk assessment tools to further investigate fall related incidences.
5. Lastly, the researchers would like to recommend the adaption of the proposed design for inpatient fall prevention program for the institutions considerations to enhance nursing personnel's awareness and compliance to fall prevention strategies.

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# ELEMENTARY SCHOOLS AND STAKEHOLDERS PARTNERSHIP IN TAYSAN DISTRICT, BATANGAS PROVINCE DIVISION

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## ABSTRACT

Studies world-over have stressed the need for the community and schools to cooperate in a meaningful manner to achieve the goals of education. The community needs to play a vital role in shaping and supporting the school and students. This study determined the Elementary Schools and Stakeholders Partnership in Taysan District, Batangas Province Division with the end view of proposing a program of activities. This also described the elementary schools and stakeholders and assessed the stakeholders' support and participation in school activities. Differences in the assessment of the respondents were also compared. Likewise, this also determined how school-stakeholders partnership helps in facilitating student's development in intellectual, social, spiritual, and physical aspects.

The descriptive method of research was utilized with the use of a questionnaire as the main data gathering instrument with a follow up interview. Respondents includes 197 teachers, 50 parents and 50 stakeholders in Taysan District. Purposive sampling was used in the study.

The study revealed that respondents strongly agreed that the school is in need of financial assistance. In terms of stakeholders participation to school activities they strongly agreed that their presence and assistance are highly sought. The null hypothesis of no significance is rejected. Further, they also revealed in the assessment that such partnership contributed to the development of students' intellectual, social, spiritual and physical aspect. The program of activities was planned and developed in accordance to the findings of this study. Moreover, this includes areas of concern such as objectives, activities and outcomes.


Keywords: stakeholders, partnership, students development, program of activities, intellectual, social, spiritual, physical

## INTRODUCTION

The basic framework of a quality education system is one that succeeds in meeting the individual school desired goals and outcomes; one that is relevant to the needs of students, communities and society; and one that fosters the ability of students to acquire knowledge and the needed 21st century skills. Quality is not the only factor keeping students out of school, but when effective learning is not taking place in schools. When this happens, several factors may be viewed as reasons: poor teaching-learning experience given by teachers, having incompetent faculty in the rosters of teachers, mismanaged school system by school heads, and poor leadership potential and misguided governance of the school administrator.

All of this will go back to how the schools adopt and practically actualize the School-Based Management. SBM has been in existence in our educational system for quite number of years, though existing for several decades in the educational systems of the other country (Leroy, 2002). Some scholars and researchers alike assert that parental and community participation in schools has created more effective schools and improved student achievements.

With this and even before this, the DepEd had been implementing several projects, programs and activities (PPA) that will realize SBM and other sound philosophical and legal frameworks of the department. Locally, it has been observed that although the schools are doing their best in linking with the different school stakeholders, still

declining results had been reported by schools on some of the school-initiated activities. Hence, this study investigated whether the level of SBM implementation affects the level of participation of the different stakeholders to school-initiated activities.

Notably, school, family and community partnerships have strong ability to weave together a critical mass of resources and strategies to enhance caring families and communities that support all youth and their families and enable success at their schools and beyond. It only means that school-stakeholder partnership has a strong impact when it comes to the life and education of every Filipino youth. Learning is not just confined on the four walls of the classroom, rather it is an extension of what's happening outside the classroom. The person behind every learning, family, government and the community have a resilient influence on the wisdom of every child. The way schools care about children is reflected in the way schools care about the children's families. If educators view children simply as students, they are likely to see the family as separate from the school. It is very general in developing countries like the Philippines that the family is expected to do its job and just leave the education of children to the schools. The educators always view students as children and they are likely to see both the family and the community as partners with the school in children's educational achievements. It is said that partners must recognize their shared interests in and responsibilities for children, and work together to create better programs and opportunities to uplift student's achievement.

Regarding this matter, nowadays schools found it very challenging to invite and encourage parents and community to attend school during conferences, meetings and orientation. They need to get motivated about the positive effects of their contribution as the primary stakeholders of the school for the enhancement of students' achievement. The same with private companies and organizations, there are projects and activities often supported by these stakeholders. In this study, stakeholders pertains to anyone involve in the welfare or success of the school and its students, including, community members, school board members, business sectors, city officials, representatives, private individuals, agencies and companies. These also includes everyone within in the community who donates to school. The main goal of the researcher is to open the community and stakeholders about their great potential with re-

gards to the help that they may offer to school for better academic achievement of the students.

## STATEMENT OF THE PROBLEM/ OBJECTIVES

This study determined the elementary school and stakeholders' partnership in Taysan District with the end view of proposing a program of activities.

Specifically, it purported to answer the following questions:

1. What characterized the Elementary Schools and Stakeholders in Taysan District? Needs analysis used to describe the school current environment. Items also reflect in the items the students development in terms of intellectual, social, spiritual and physical.
2. How do teachers, parents and other stakeholders coordinators assess the latters support and participation in school activities?
3. How do the assessments by the three groups compare? Are there significant differences?
4. How does school-stakeholders partnerships facilitate students development in terms of:
   4.1 Intellectual
   4.2 Social
   4.3 Spiritual
   4.4 Physical
5. Based from the analysis, what program of activities may be proposed to enhance school-stakeholders partnership.

## METHODOLOGY

This study utilized descriptive survey to establish the need for enhancing the school-stakeholders' partnership in Taysan District. As defined by Fraenkel (2010), descriptive method is a process of gathering, analyzing, classifying, and tabulating data about a prevailing phenomenon, practices, beliefs, processes, trends, cause and effect relationship and then making adequate interpretation of the data collected with or without the aid of statistical method. This study involved three groups of respondents: 197 teachers from Kinder to Grade 6, 50 selected parents who served as PTA officers and 50 stakeholders coordinators from different group of individual and agencies in Taysan District. Purposive sampling was used in the study. The study utilized a self-constructed questionnaire as the main data gathering instrument which was complemented by interview.

The researcher was advised to present the draft of the questionnaire to the experts in the field for validation. A dry run to test the validity of the instrument was likewise conducted. Reliability testing was done using Cronbach alpha Test. The result revealed that the questionnaire contained high internal efficiency level of 0.930 which was higher than the minimum constant value of 0.70, indicating that the instrument was reliable and the options in questionnaire were appropriate for utilization.

The researcher secured request letter and ensured permission to conduct the study from the Schools Division Superintendent of the Division of Batangas. Having been granted, the researcher went to every school for the administration of the questionnaires. Respondents were oriented about the purpose of the research work and its relevance to encourage their utmost participation. Likewise, confidentiality of their responses was secured. Respondents were given enough time to answer the questionnaire and a schedule was set for its retrieval. Upon the retrieval of all the questionnaires that were administered, results were tallied, analyzed and interpreted using the appropriate statistical tools which includes weighted mean, One way Analysis of Variance, and Scheffe's Test.

## FINDINGS

This study explored the **characteristics of elementary schools and stakeholders in Taysan District, Division of Batangas**. Table 1 presents the data about the schools and stakeholders.

1. Based on the assessment of teachers, they strongly agreed that the school is in need of different gadgets and machineries and financial assistance is greatly needed to support students' needs and welfare. This infers that they had the belief that the school's overall performance is attributed to the availability of learning infrastructure and financial stability. Students, in addition, learn best when these needs are satisfied by the school. Also, it can be said that financial assistance provided is limited and therefore teachers believed that schools should strategize more to be able to solicit some funds and financial assistance. When this happens, they would be able to ensure provision of students' needs relative to academics and other undertaking.

**Table 1. Characteristics of Elementary Schools and Stakeholder in Taysan District**

| ITEMS | Teachers | | Parents | | Stakeholders | |
|---|---|---|---|---|---|---|
| | WM | VI | WM | VI | WM | VI |
| The school is situated/located where there are lots of stakeholders that support school aims, objectives and programs. | 3.25 | A | 3.44 | A | 3.10 | SA |
| There are stakeholders that build partnership with school to improve students' intellectual, social, spiritual and physical capabilities. | 3.14 | A | 3.42 | A | 3.18 | SA |
| There are nearby establishments that support the student's spiritual growth such as churches, chapels and religious centers. | 3.17 | A | 3.26 | A | 2.98 | SA |
| Professionals like doctors, engineers and the like are present in the community who extend help to improve students' intellectual capacity through trainings and seminars. | 2.75 | D | 2.90 | A | 2.56 | A |
| The school is in need of different gadgets, machineries and equipment that help students achieve more in school. | 3.40 | SA | 3.48 | SA | 3.36 | SA |
| Most of the community members offer help, contribute money, donate materials and volunteer services during Brigada Eskwela and other activities. | 3.05 | A | 3.22 | A | 3.06 | SA |
| The school open partnerships to nearby establishments, subdivisions and bank to improve student learning. | 2.63 | D | 2.90 | SA | 2.56 | A |
| There is a regular school service initiated by the community to help students to go to school. | 2.24 | SD | 2.70 | A | 2.58 | D |
| Inadequate sports equipment of the school contributes to student's low performance in Sports. | 3.13 | A | 3.06 | A | 2.86 | A |
| Community offers basic trainings that help teachers and learners to be aware about community issues and happenings. | 2.71 | A | 3.06 | SA | 2.68 | A |
| There are student community immersions in school. | 2.90 | D | 3.30 | A | 2.88 | A |
| Financial assistance or fund is greatly needed by the school to support students' needs during team building activities. | 3.56 | SA | 3.64 | A | 3.32 | SA |
| The school is supported by private sector to motivate and develop the skills and ability of the students to create programs to the community. | 2.73 | A | 2.86 | A | 2.60 | SA |
| Community conducts athletic competition to improve students' physical capabilities. | 2.89 | A | 3.22 | A | 2.78 | A |
| There are private sectors who offers scholarship and financial assistance to students. | 2.50 | A | 2.90 | SA | 2.36 | A |
| Instructional gadgets were provided and sponsored by the community. | 2.43 | A | 2.70 | A | 2.58 | A |
| The school has insufficient learning materials. | 2.56 | A | 2.70 | SA | 2.64 | A |
| Churches invites students for recollection activities. | 3.09 | A | 3.28 | A | 2.88 | A |
| There was inter-barangay league tournament for student's physical improvement. | 2.77 | A | 3.16 | A | 2.76 | A |
| Stakeholders offers feeding program project to ensures student's wellness. | 2.96 | A | 3.18 | A | 2.94 | A |
| **COMPOSITE MEAN** | **2.89** | **A** | **3.12** | **A** | **2.83** | **A** |

*Legend: SA- Strongly Agree*     *A – Agree*
*SD – Strongly Disagree*     *D – Disagree*

As affirmed by Llego (2015), schools need and necessities must be met in order to ensure effective students learning and for the schools to achieve its vision of quality learning among students. He also gave the idea about MOOE which the school heads nowadays are capable of using to sustain these needs, and with strict compliance with the guideline set forth by the DepEd.

The respondents also expressed agreement that school has strategic location where lots of stakeholders support the school aims, objectives and programs. It implies that the school has open relationship with the members of the community where it is located. Harmonious relationship is established which allowed the school to elicit support and assistance from neighboring people and all. In a way, these people have embraced the school vision of quality education and genuine intention to help the students learn holistically. As revealed in the interview, they shared that school and stakeholders expressed agreement that they had a well-sound working relations with the school and thus they, as parent, keep on supporting the school's undertaking which would benefit the students in the long run. They also shared that they keep themselves visible and available whenever schools call for a meeting.

Also, the teacher respondents, expressed agreement that establishments support students' spiritual growth. They understand that in the sustenance of holistic growth and development of students, establishments like churches and other religious centers play vital role to attain such. Everyone knows that not all learning is taken in the school context, some things are best learned when experienced, therefore, this is supportive to the idea of transforming the students holistically. This finding supports the results of the study of Strickland (2016) when he made emphasized that strengthening one's faith is also another consideration for school to sustain and be given priority.

The respondents revealed disagreement that school has open partnerships to other entities like banks and subdivisions which in turn help improve student learning. With this finding, this implies the need for schools to widen its influence and tap resources in the vicinity. They also need to ensure that these are tapped to generate support and expect optimum learning for students where they could have attained and explored real-life experiences. Notably, limitation on the presence of professionals like doctors and engineers still affect the education as they lack certain expertise of which schools could ask trainings and seminars from.

This runs parallel to the contention of Alvior (2014) that schools, being a formal entity, should be able to tap and affirm the resources readily available in the community. They also have the responsibility to keep on track with how the lesson be applied in real life by securing parents and stakeholders concrete place for local exposure and relevant opportunities.

As such, parents revealed in the interview, as a developing municipality, Taysan is strategic to be a progressive one in the future. At present, it is true that no banks are already standing in the municipality.

Lastly, the respondents revealed disagreement in the presence of school service to regularly bring and fetch students to and from the school. This stresses the need for schools to seek support from the local barangay council who could help them transport students to and from schools. In order for such to happen, schools, should therefore have well-presented plans to barangay officials so that they will take initiative in actualizing this undertaking. School leaders should have become more strategic to think of ways to help and assist students in terms of their needs and means of transportation.

They also think that once these materials are provided, schools should be more responsive to the needs and desires of the students. It also implies that community keeps on upgrading teachers' competencies and skills in terms of providing seminars and trainings which could have effects in the teaching-learning process. This validates the insights of Karren (2018) that along the provision of these gadgets and equipment are teachers' proficiency to effective teaching and curriculum design. The idea of having all these would mean successful teaching and learning experience, it is therefore, a must for school to provide whenever possible and if they are not capable, they must look and find ways on how these can be provided to the students. In the end, it is also a must for the school heads to put premium on the faculty training and development of their teaching personnel.

## 2. Assessment of Teachers, Parents and other Stakeholders' Participation in School Activities

**Table 2Assessment of Stakeholders Participation in School Activities**

| ITEMS | Teachers | | Parents | | Stakeholders | |
|---|---|---|---|---|---|---|
| | WM | VI | WM | VI | WM | VI |
| Provide assistance during school activities like Nutrition Month Celebration, School Sports Intra-murals, *Buwan ng Wika* | 3.31 | A | 3.50 | SA | 3.26 | A |

| | | | | | | |
|---|---|---|---|---|---|---|
| Collaborate with the school in planning school programs and activities. | 3.08 | A | 3.40 | SA | 3.10 | A |
| Cooperate with the school to promote programs that will develop teamwork and unity between community members and school. | 3.04 | A | 3.44 | A | 3.16 | SA |
| Attend the school calendar of activities. | 3.06 | A | 3.32 | A | 3.12 | SA |
| Participate on civic and social activities in community launched by school. | 3.07 | A | 3.22 | A | 3.04 | A |
| Render support on providing efficient sports and recreational activities for students. | 2.98 | A | 3.26 | SA | 2.96 | A |
| Bond with the school in supporting seminars and trainings for teachers, parents, students and other personnel in school | 2.85 | A | 3.16 | SA | 2.84 | A |
| Monitor school performance and suggest some mediation activities and intervention activities. | 2.70 | A | 3.14 | SA | 2.92 | SA |
| Work with school to prevent students from negative influences of their environment. | 3.07 | A | 3.22 | A | 2.96 | A |
| Assist in providing sanitary measure to students. | 3.07 | A | 3.24 | A | 2.96 | SA |
| Help to build up from facility loss after calamity devastation. | 2.96 | A | 3.20 | A | 2.90 | SA |
| Establish firm and better cooperation with the school in maintaining a child-friendly school environment. | 3.08 | A | 3.38 | A | 3.06 | SA |
| Assist in providing venues during student- community affairs. | 2.90 | A | 3.20 | A | 2.92 | SA |
| Help school in providing dental, mental services. | 2.68 | A | 3.04 | A | 2.68 | A |
| Provide means for extra – curricular activities for parents and students. | 2.91 | A | 3.22 | SA | 2.92 | SA |
| Participate in school environmental protection drive and safety measures project. | 3.08 | A | 3.42 | SA | 3.12 | A |
| Attend PTA meetings, conferences and consultations. | 3.29 | A | 3.48 | A | 3.18 | A |
| Help school in establishing linkages among community members. | 2.98 | A | 3.28 | A | 2.96 | SA |
| Offers an donate financial assistance for school projects. | 2.91 | A | 3.16 | A | 3.00 | SA |
| Help school in generating scholarships for students. | 2.64 | A | 2.92 | A | 2.70 | SA |
| **COMPOSITE MEAN** | **2.98** | **A** | **3.26** | **A** | **2.99** | **SA** |

*Legend: SA- Strongly Agree      A – Agree*

This study delved into looked the relevant support and assistance enjoined by stakeholders in all school-initiated activities and undertakings. Based on the assessment of teachers, all indicators obtained agreement from the respondents. Attendance to PTA meetings, conferences and other forms of consultations remained to be participated. This means that teachers believed that parents have strong support to all school undertaking especially if that concerns the welfare and achievement of their students. They come to school to express profound support to let the schools feel that they are behind of their decisions and promulgations concerning the welfare of the students entrusted to them.

Also agreed by the respondents was in providing assistance during school activities like nutrition month, sports intramurals, Buwan ng Wika celebration and others. This result speaks well of the active participation to school's activities, this also means that they are successful in exhibiting support and assistance from the concerned group of people. Further, it can be noted that they were supportive in terms of teachers' seminars, and trainings and all the persons in the school community. Since they believe that they play active role in the development of school affairs, thus, supporting teachers to this extent is highly manifested. Alvior (2014) mentioned that in schools' equal treatment of activities for academics and non-academics are contributory to the growth and beings of the students. As such, in order to sustain continuity of the programs, parents and guardians are encouraged to be with their children and both experience the joy and spirit of being together in all school-initiated activities.

The same respondents revealed agreement in monitoring school performance and suggest mediation and intervention activities. As constant partners in the school affairs, they are one with the school in ensuring amiable school performance characterized by concern and love to all members of the school community. This also highlights the role in giving feedback and relevant inputs which would help the school to secure competitive performance as a whole. Carlisle (2013) highlighted that partnership enables them to freely express ideas and views which could be adopted by the school to help assist learning of the students.

The thing is, demarcation line must be established and communication must always be at hand so as to not miscommunication and other forms of untoward action. Parents should therefore be helpful with the school leaders to help foster effective learning of all concerned.

Also, when typhoon or disaster strikes, it was revealed in the assessment that they agreed in helping schools to fix facilities after its devastating effects. This goes to say that since parents feel in partnership with the school affairs, they feel the need to be one with them in securing the school as place of security and safety amongst students. This also infers that they also had to since schools served as the second home of their children. This runs parallel to the insights of Teixeira (2017) that school infrastructure is really, really significant in the overall growth of the students. As partners, parents should extend help of support to school whenever needs to help ensure conduciveness and safety of schools to all concern; they must both be willing to address the needs at all times.

As shared in the interview, they revealed that as partners, they feel the concerns of the school as they treat them as their children second home. Therefore, whenever needed, they make sure to help and assist the school officials with regard to their needs and other concerns.

## 3. Differences in the Assessments of Teachers, Parents and Stakeholders' Participation in School Activities.

This study also looked into the differences in the assessments by teachers, parents, and stakeholders' participation in school activities.

**Difference on the Assessment of Teachers, Parents and Stakeholders Participation in School Activities**

|  | Mean | S.D. | *F*-value | *p*-value | Decision on H0 | Interpretation |
|---|---|---|---|---|---|---|
| Teachers | 2.98 | 0.51 |  |  |  |  |
| Parents | 3.26 | 0.42 | 6.6244 | 0.0015 | Reject | Significant |
| Stakeholders | 2.99 | 0.45 |  |  |  |  |

This table shows the difference on the respondents' assessment on their participations in school activities. It can be gleaned from the table that the computed F – value of 6.6244 yielded a p – value of 0.0015 which is less than 0.05 level of significant. This indicates that the null hypothesis of no significance is rejected. Thus, there is significant difference on the assessment of teachers, parents and other stakeholders on their level of participations among school activities.

Result of the study shows that parents show greater participation as reflected on its composite of 3.26 which is significant higher that the assessment of teachers and other stakeholders. This simply means that for the schools to be fully effective and successful in rearing the children entrusted to them, support from parents and stakeholders is need. This also infers that parents are supportive to all school activities and undertak-

ings since they believe that schools are important place for their children to acquire learning and values and most significantly in the holistic development.

This affirms the findings of Jungay (2016) that school's programs, projects and activities become even successful through the help and effort of the community especially the parents. He also stressed that they contribute much on the development of the school's goals and objectives.

## 4. School-Stakeholders Partnerships in Facilitating Students' Development

This study identified the key role of the school and stakeholders' partnership in relation to the students' development in terms of intellectual, social, spiritual and physical.

**Table 4 School-Stakeholders Partnerships in terms of Intellectual Aspect**

| ITEMS | Teachers WM | Teachers VI | Parents WM | Parents VI | Stakeholders WM | Stakeholders VI |
|---|---|---|---|---|---|---|
| Collaborate with school in providing school library and computer laboratory. | 2.63 | A | 3.12 | A | 3.00 | SA |
| Cooperate with the school in Sponsoring material resources for research like WIFI, laptop, books that will cater students' needs for learning and research. | 2.60 | A | 2.98 | SA | 2.96 | SA |
| Develop intellectual capacity of students through donated gadgets. | 2.66 | A | 3.02 | SA | 2.80 | SA |
| Collaborate in rendering scholarship program that enable students to acquire quality education with enough financial assistance. | 2.51 | A | 2.98 | A | 2.80 | A |
| Support and initiate quiz bee competition in school. | 2.63 | A | 3.12 | SA | 3.04 | A |
| Plan and execute seminars and trainings that improves student's community awareness and intellectual building. | 2.68 | A | 3.20 | A | 2.94 | A |
| Provide means for outdoor activities of students. | 2.85 | A | 3.10 | SA | 2.90 | A |
| Initiate English Literacy and Numeracy Trainings to build up students' achievement. | 2.82 | A | 3.14 | SA | 2.86 | A |
| Provide financial assistance during student's contest and performances. | 2.68 | A | 3.14 | SA | 2.74 | A |
| Promote the importance of reading through sponsoring Reading Camp Program. | 2.91 | A | 3.10 | SA | 2.86 | A |
| Sponsor intellectual capacity games and contest for students to sharpen minds. | 2.78 | A | 3.08 | SA | 2.74 | A |
| Promote and support curriculum implementation. | 2.96 | A | 3.20 | SA | 2.94 | A |
| Provide students with helpful feedbacks for performance improvement. | 2.86 | A | 3.24 | SA | 2.94 | A |
| **COMPOSITE MEAN** | **2.74** | **A** | **3.11** | **SA** | **2.89** | **A** |

*Legend: SA- Strongly Agree          A – Agree*

**4.1 Intellectual**. An intellectual is a person who engages in critical thinking, research, and reflection about the reality of society, and proposes solutions for the normative problems of community. As assessed by teachers, they agreed in promoting and supporting curriculum implementation. This clarifies that school and stakeholders had been very supportive to the school's endeavors in terms of developing students' intellect. Through the different programs spearheaded by the school, it can be said that every student entrusted is working to be responsive to the mission and vision of the school. Also, it is noteworthy to mention that this partnership had made effective impacts in the academic development of the students. Karren (2018) informed that curriculum development and innovation becomes even effective when supported and valued by the people especially the parents and other stakeholders. They also should express appreciation and must understand the significance of this curriculum innovation in the good name of effective teaching and learning.

Several aspects of partnership have deliberately focused on the overall performance of the students. As they are all aware, academic performance of students is dependent to the provided materials and learning infrastructure to the students. Specifically, some of these materials had been sponsored like Wi-Fi, laptop and relevant books to help students enhance their research skills and capabilities. Normally, students are exposed to various curricular and extra-curricular activities of which this partnership has taken into a great assistance. As a whole, it may be inferred that school and stakeholders had gone a long way in terms of their partnership as assessed by teachers. This affirms the insights of Martinez (2015) that stakeholders' program and parent involvement have a great effect on the achievement of the students

All other indicators are supportive to the fact that as assessed by the parents, they agreed that such are indicative of a strong school-stakeholder partnership. As such, it can be said that the intellectual aspect of the students is developed and enhanced through the support and assistance of the stakeholders; through their hands-on approach in providing for the needs of the school, they are also able to help address the needs of students in terms of their academics. In case of joining to contest and other activities, schools are well-supported by the stakeholders. They are one with them in shaping the desire of the school and students in maximizing the opportunities coming along the way.

**4.2 Social.** This relates to an individual's interaction with other people especially for pleasure and a worthy social engagement activity.

**Table 5 School-Stakeholders' Partnerships in terms of Social Aspect**

| ITEMS | Teachers | | Parents | | Stakeholders | |
|---|---|---|---|---|---|---|
| | WM | VI | WM | VI | WM | VI |
| Team up with the school and raised fund for trainings and seminars that will improve school-stakeholders relationship. | 2.90 | A | 3.32 | A | 2.92 | A |
| Work in partnership and grant sports invitation in school gives students opportunity to develop social responsibility. | 3.02 | A | 3.24 | A | 3.06 | A |
| Provide team building activity enables students to develop camaraderie with peers. | 2.74 | A | 3.08 | A | 2.94 | A |
| Cooperate with the school in planning Grand Alumni Homecoming that contributes to student social responsibility by letting students to assist school alumna. | 2.84 | D | 3.20 | A | 2.84 | A |
| Sponsor civic and social activities in school. | 2.77 | D | 3.04 | A | 2.78 | A |
| Maintain school peace and order through good parenting support to students. | 3.11 | A | 3.22 | A | 3.02 | A |
| Collaborate with school in rendering better guidance program for students. | 2.90 | D | 3.34 | SA | 3.10 | A |
| Work with school to prevent students from negative vices and activities. | 3.18 | A | 3.34 | SA | 3.06 | A |
| Initiate meet and greet day for students' families in school. | 2.80 | D | 3.04 | SA | 2.94 | A |
| Develop parent outreach training programs to establish social responsibility. | 2.73 | D | 3.04 | SA | 2.82 | A |
| Help school in establishing linkages among sectors in the community. | 2.89 | D | 3.20 | SA | 2.86 | A |
| Engage in school-decision making in solving school issues and problems. | 2.73 | A | 3.28 | SA | 2.78 | A |
| Engage students in school-community livelihood programs. | 2.70 | A | 3.18 | SA | 2.68 | A |
| **COMPOSITE MEAN** | **2.87** | **A** | **3.19** | **SA** | **2.91** | **A** |

Legend: SA- Strongly Agree    A – Agree
SD – Strongly Disagree    D – Disagree

Teachers agreed that maintaining peace and order through good parenting helped students' development in terms of their social aspect. This implies the strong conviction and the vital role of parents and home in the holistic development of students. In addition, it also stressed that schools as the second home of students, served as the reinforcement of what has been learned by students at home and every action or behavior was first learned at home. As evident in the interview conducted, parents shared that they keep on instilling

good values to their children as they believe teachers are their children's second parents. They also shared that mutual respect and other traits must be first learned at home and should be brought to the schools. As such, they even shared that parents' way of discipline matters a lot.

Moreover, this also safe to say that as parents, teachers understand their roles and responsibilities in keeping their children morally upright and pleasing to everyone. Another point seen from the table is the fact that teachers knew that this school-stakeholders partnership helps in preventing students from negative vices and other activities. Through this, the barangay officials are well-informed of the students' time of dismissal and therefore, can help and assist the needs of schools and students. As Kamel (2016) posited, school activities yield sustained and enhanced learning of students. As such, schools are vital to make these needs present and available for all concerned.

Teachers expressed disagreement that establishing linkages in the community helped in developing students' social aspect. This is solely because such indicator lies in the specific function of the school so how could the students be able to develop social skills since they are not the front-liners for this undertaking. Also, this could mean that as results of the table revealed disagreement is also shown in collaborating with schools in rendering guidance program for students.

**4.3 Spiritual**. It means relating to people's deepest thoughts and beliefs, rather than to their bodies and physical surroundings.

**Table 6 School-Stakeholders Partnerships in terms of Spiritual Aspect**

| ITEMS | Teachers | | Parents | | Stakeholders | |
|---|---|---|---|---|---|---|
| | WM | VI | WM | VI | WM | VI |
| Coordinate with the school to offer and provide religious activities like catechism that will help students to become open minded in the growth of | 3.16 | A | 3.48 | SA | 3.22 | A |
| Provide recollection activities that nurtures students to care not for themselves but also for | 2.95 | D | 3.28 | SA | 3.08 | A |
| Host retreat programs in school makes students experi- | 2.63 | D | 3.06 | SA | 2.84 | A |
| Provide religious center for student's counselling. | 2.75 | A | 3.20 | SA | 2.92 | A |
| Send missionaries in school that facilitates discussion or | 2.82 | A | 3.12 | SA | 2.86 | A |
| Develop student-church outreach program. | 2.94 | A | 3.14 | SA | 2.90 | A |
| Team up with school in hosting family gatherings like family day. | 2.73 | D | 3.12 | SA | 2.84 | A |
| Launch school livelihood program through churches initiatives. | 2.62 | D | 3.12 | SA | 2.76 | A |
| Advocate words of God through seminaries. | 2.86 | A | 3.26 | SA | 2.84 | A |
| Provide at least one day catechist lesson in school. | 3.05 | D | 3.32 | SA | 3.06 | A |
| Offer Bible Study in schools. | 2.77 | D | 3.22 | SA | 2.88 | A |
| Seek guidance from churches during the formulation of school policies, objectives and regulations. | 2.83 | A | 3.22 | SA | 2.84 | A |
| Offers school religion classes. | 3.09 | A | 3.34 | SA | 3.04 | A |
| **COMPOSITE MEAN** | **2.86** | **A** | **3.22** | **SA** | **2.93** | **A** |

*Legend: SA- Strongly Agree          A – Agree*
*SD – Strongly Disagree     D – Disagree*

It can be inferred from the assessment of teachers that they agreed in coordinating with school to offer and provide religious activities like catechism that helps students to become open minded in the growth of their spiritual aspect. This means that school-stakeholders partnership has been supportive to students' spiritual life and endeavors. They had successful partnership in leading students with the development of their faith as this pressing time must be inculcated the relevance of strengthened faith amongst students. Also, this could mean that teachers view such partnership in helping students to know and contemplate on the very essence of their existence.

Further, agreement is also seen in the provision of religious center for students' counseling. Such school needs to have corner or special room where students can find themselves in the spirit and solidarity with God. This is also another point to consider in the delivery of holistic students' development.

Moreover, teachers expressed disagreement on the conduct of bible study in schools. As argued, this is attributed to the fact that K to 12 curriculum is also congested and it is another challenge for schools to integrate bible lesson in a lone subject or otherwise. Nevertheless, the schools are firm on its stand that being non-sectarian, they honor and respect whatever religious beliefs their students have.

As validated in the interview, parents shared that due to compressed schedule, at times, student's complaint that school days become tiring and full of activities. They also shared that they cannot comply with some requirements and other performance tasks. This is what Strickland (2016) meant that schools' reveal faith amongst students and parents through their well-identified spiritual programs and activities.

It could also be noted in the assessment of teachers that they agreed in seeking guidance from churches in the formulation of school policies, objectives and regulations as well as in the offering of religion classes. This implies that school-stakeholders partnership believe that the very essence of students' education is also rooted to the Christianity and belief that even religion is also considered and consulted in the welfare and benefit of the many. Another striking finding revealed in the assessment of teachers were disagreement in providing recollection activities that nurture students to care not only for themselves but for others and hosting retreat program. Since these activities are neither feasible nor doable for schools, this helped teachers viewed school-stakeholders partnership not very supportive to the spiritual aspect of students. Although, relevant as these seems to be, still schools failed to conduct neither recollection activities nor even hosting retreat programs.

Looking at the assessment of parents, all of the indicators mentioned received strong agreement which means they are all significant in the development of students' spiritual aspect. It could also be noted that some of their views go against the points raised by the teachers. As for these parents, all items were conducted and provided for students to develop their spiritual aspect.

**4.4 Physical.** Physical means relating to the structure, size, or shape of something that can be touched and seen.

**Table 7 School-Stakeholders Partnerships in terms of Physical Aspect**

| ITEMS | Teachers | | Parents | | Stakeholders | |
|---|---|---|---|---|---|---|
| | WM | VI | WM | VI | WM | VI |
| Collaborate with the school in initiating Sports Fest that gives students opportunity to develop their physical abilities. | 3.01 | A | 3.38 | SA | 3.02 | A |
| Sponsor food feeding programs that improve students' physical attributes. | 3.02 | A | 3.24 | SA | 3.02 | A |
| Provide exercise or aerobic routines in school that develop student's alertness. | 2.75 | D | 3.26 | SA | 2.90 | A |
| Conduct gaining or losing weight challenge to maintain students Body Mass Index. | 2.48 | A | 3.10 | SA | 2.72 | A |
| Build programs on Health that uplifts students' physical attributes. | 2.84 | A | 3.22 | SA | 2.88 | A |
| Offer symposiums on proper handwashing and tooth brushing. | 3.19 | SA | 3.32 | SA | 2.98 | A |
| Facilitate Nutrition Month Activity. | 3.18 | SA | 3.40 | SA | 3.06 | A |
| Maintain student's sanitary consciousness and responsiveness. | 3.02 | A | 3.28 | SA | 3.00 | A |
| Offer students with adequate dental and medical services. | 2.70 | A | 3.18 | SA | 2.86 | A |
| Establish efficient and nutritious food program in school canteen that contributes to student's physical aspect. | 3.07 | A | 3.38 | SA | 2.96 | A |
| Promote Wellness Programs in school. | 3.14 | A | 3.24 | SA | 3.00 | A |
| Initiate community sports clinic even during vacation. | 2.66 | A | 3.12 | SA | 2.76 | A |
| Facilitate trainings about proper hygiene. | 3.06 | A | 3.30 | SA | 2.98 | A |
| **COMPOSITE MEAN** | **2.93** | **A** | **3.26** | **SA** | **2.93** | **A** |

Legend: SA- Strongly Agree     A – Agree
         SD – Strongly Disagree     D – Disagree

As assessed by teachers, they strongly agreed that offering symposiums on proper handwashing and tooth brushing and conducting nutrition month activity contributed to the physical development of the students. This means that school always believe that proper hygiene and sanitation is vital for students' protection. Thus, they made sure that these are highly considered and regarded. Also, once a year, the school is in compliance with the celebration of Global Handwashing Tooth brushing day.

Through this activity, every student is encouraged to see the relevance of staying physically fit and healthy. This is in line with the idea of Will and Logan (2017) that activities undertaken by the school consistently help the students in their physical development.

Another striking activity that schools conduct every year is the nutrition month, this is celebrated every July of the year. Anchored on the DepEd memo on the conduct of this activity, schools localized and creatively plan for programs that highlight their available materials in collaboration and support of the parents and other stakeholders.

Other indicators which teachers expressed agreement were facilitating trainings about hygiene and the collaboration in initiating sports fest that gives students opportunity to develop their physical abilities. As seen from this, it is evident that schools are on guard in securing students' physical abilities. They see to it that activities being undertaken are contributory to the overall growth of the students and all the people in the school community.

Sports festival or intramurals is something of which the students are always in anticipation of. They look forward to this event as through this activity they can be able to play games and friendly compete with other group of students. Teachers also agreed that offering efficient and nutritious

food in the school canteen significantly contribute to the physical aspect of the students. This is true that as for the teachers, canteen personnel and its operations are vital in the actualization of this endeavor. They must be able to set standards and offer goods supportive to the fact of students' physical development and growth.

## 5. Program of Activities to Enhance Schools-Stakeholders Partnership

A developed program of activities for schools-stakeholders partnership would help both parties for their sustained and even more effective engagement. It identified what has to be improved in terms of the partnership's key terms and responsibilities, specifically in the extent of support and assistance to school activities and in the matter of contributing to students' development.

This output was conceptualized based on the key results of the study, specifically on the assessment of the support and assistance to school activities. A few indicators need to be given attention for them to enhance understanding of the implementation and support to the school affairs. As such, program of activities was carefully prepared considering all the pertinent data acquired from the study. It includes areas of concern, objectives, and activities which could be adopted. In view of the analysis on the findings, the proposed program of activities is hereby designed to enhance and strengthen the partnerships between schools and stakeholders for better development of the students.

**Program of Activities to Enhanced School-Stakeholders Partnership**

| Aspect | Objectives | Activities | Output | Time Allotment |
|---|---|---|---|---|
| Intellectual | 1.Establish collaboration within school/district jurisdiction to sustain the library and other laboratories' demands and needs. | •Strategic planning or improvement of the school-based management to list possible internal and external sponsorship<br><br>•Tapping the Parent-Teacher Association and draft programs and projects to address the pressing needs of the students | •Enhanced and sustained needs of the school in terms of instructional materials and other resources<br><br>•Effective instruction and classroom management | Year Round |
| | 2.Encourage sponsorship of material resources to cater students needs for learning and research. | •Craft and design mechanism on how to gain partnership to support school's learning and academic resources<br><br>•Coordinating with local barangay council to augment the need for the research materials like wifi and laptops.<br><br>•Allocating funds from the MOOE for the needs for the students and teachers' instructional delivery (contest expenses) | •Enhance student's readiness to do researchers<br><br>•Develop student's intellectual capacity through sponsored gadgets and resources. | Year Round |
| | 3.Reassure stakeholders to render scholarship program | •Invite stakeholders to attend meetings and conferences.<br><br>•Request scholarship grant during school-community affairs.<br><br>•Tap private individuals like alumni and professionals | •Scholarship grants for students sponsored by private individual and companies.<br><br>•Assurance of education for all deserving students | Early Registration<br><br>Year Round |
| Social | 1.Increase parents and guardians involvement in school affairs and social activities. | •Invite parents through letters, text messages and social media.<br><br>•Express recognition during meetings and conferences | •Better attendance of parents and guardians<br><br>•Sustained conduct of school affairs | Year Round |
| | 2.Generate funds through creative school-based activities. | •Outsourcing resources in collaboration with schools' alumni office<br><br>•Fund raising activities to generate financial support<br><br>•Initiating programs which involved parents' maximum participation (i.e sports festival, nutrition month, guidance and counselling)<br><br>•Increasing participation to barangay-community based extension activities and outreach programs | •Sustained supported school based activities that encourage students development.<br><br>•Effective communication between and amongst school partners<br><br>•Stronger collaboration and engagement | Year Round |

| | | | | |
|---|---|---|---|---|
| **Spiritual** | 1.Provide spiritual and catechetical rituals to strengthen one's faith | •Policy-making in support to spiritual program implementation<br><br>•Encouraging religious groups and sects to conduct bible study or lectio Divina (Bible sharing)<br><br>•Scheduling for a recollection or retreat for students<br><br>•Integrating bible lessons and activities in the subject ESP | •Redefined policy and guidelines relative to school's spiritual program<br><br>•Strengthened and renewed one's faith and wisdom<br><br>•Wide involvement of stakeholders | Year Round |
| | 2.Learning by experience through out of school activities<br><br>Activities | •Sponsoring annual year-end thanksgiving party<br><br>•Forging linkages with community-based partners<br><br>•Develop student- church outreach program | •Life long learning of students through experience<br><br>•Practice learning by doing | Year Round |
| **Physical** | 1.Craft programs to increase health awareness and lifestyle consciousness | •Conducting in-depth review of the MAPEH program<br><br>•Listing the needs and concerns as well as feedback towards the program<br><br>•Responding appropriately to immediate issues and concerns | •Healthy body and lifestyle are ensured among students<br><br>•Awareness of the impact of good health in one's life | Year Round |
| | 2.Recognize the value of staying fit and healthy through community sponsored activities. | •Build school-based programs on Health<br><br>•Promote wellness program in school<br><br>•Facilitate trainings on proper hygiene | •Healthy body and mind of students for better students achievements<br><br>•Developed physical capabilities of all students not only those who involved in sports<br><br>•     Maintain students sanitary consciousness and responsiveness in school. | Year Round |

## CONCLUSIONS

Based from the findings of the study, the following conclusions are drawn.

1. Respondents agreed that schools physical facilities and gadgets are vital in ensuring quality and effective teaching and learning hence partnerships is really vital in achieving the goals and objectives of the school. As a developing municipality, Taysan is strategic to be a progressive one in the future. At present, it is true that no banks and other buildings are already standing in the municipality so therefore schools must used its optimum strategy to encourage partnership with other entities present in the community.

2. Stakeholders participation in school activities is outstanding but still there are aspects that needs assistance and attention. Respondents revealed that as partners, they feel the concerns of the school as they treat them as their children second home. Therefore, whenever needed, they make sure to help and assist the school officials with regard to their needs and other concerns.

3. Assessments in the school-stakeholders partnership significantly expressed strong support and assistance to school's endeavors.

4. School and stakeholders partnership generated support to students' development in terms of intellectual, social, spiritual and physical aspect.

5. The program of activities to enhanced school and stakeholders partnership is designed.

## RECOMMENDATIONS

From the findings and conclusions of the study, it is basically based on the key results of the study. The following recommendations are offered.

1. The designed program of activities based from the findings may be reviewed by the concerned school's division for suggestions and enhancement measures and may be recommended for possible adoption to help public elementary schools to maximize partnership.

2. Schools are encouraged to design activities to attract more private entities that could provide assistance for them and devise ways on how the provision of assistance can be sustained.

3. A parallel study may be conducted for other divisions.

## ACKNOWLEDGMENT

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# QUALITY OF EDUCATION IN SELECTED BARANGAY SCHOOLS IN BAROTAC NUEVO, BAROTAC NUEVO, ILOILO: AN ASSESSMENT

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## ABSTRACT

**This study ascertained the quality of education of ten (10) barangay schools in Barotac Nuevo, Iloilo, as perceived by three hundred (300) students, thirty (30) teachers, and ten (10) school administrators.  Based on the indicators: school climate (sc) parental involvement (pi) curriculum implementation (ci) and Availability of Technology and Instructional Materials (a.of tech.& inst. Materials) and described as Excellent (E), Very Good (VG), Good (G), Fair (F) and Poor (P). An adapted questionnaire was the primary tool used in the study. Statistical tools applied were frequency count, percentage, mean, standard deviation, t-test, and  variance analysis As a whole students perception revealed that the quality of education at barangay schools was excellent for parental involvement and curriculum implementation  while very good for school climate and availability of technology and instructional materials. On the other hand, teachers and administrators when taken as a whole perceived that parental involvement and curriculum implementation were fair and poor for school climate and availability of technology and instructional materials. Variations were noted on the responses of respondents when grouped according to variables. Finally, the needs of barangay schools based on the four (4) indicators were good environmental ambiance, continued encouragement to parents involved in school events and activities, additional books and computers with internet connection for teachers and students alike, more in- service training and further incentives to pursue advance professional growth among teachers.**

## INTRODUCTION

Economists, social scientists, and politicians suggest that Education has a crucial role in developing a country. The  social and economic developments of a country depend directly on the education levels of  workforce .The quality of Education given to adolescents is becoming increasingly important. Education authorities' role is to   explore and search the ways to assess the quality of education by measuring the effectiveness  of the educational systems's components (Taneri and Demir, 2011).

There are some differences in education practices based on various variables such as regional differences and socioeconomic status.  Most parents are not satisfied with the quality of rural schools.  They thought that the quality of rural schools could not compare with urban schools. Besides, the physical conditions of the rural schools are not right (UNICEF, 1999). Since they see children as human power in the rural areas, boys have to learn farming and agriculture while girls learn home economics (Yucel, 1994).

Education's quality and effectiveness depend on qualitative variables such as the characteristics of schools, teachers and classrooms, and quantitative variables such as achievement scores (Mayer, et al., 2000). Researchers claim that the school quality is high if the teachers have high academic skills , teach in the field of training , have at least several years of teaching experience, and participate in the professional development programs (Mayer et al., 2000).  Teachers experience and qualifications were assumed to  directly impact both the school and students (Scheerens, 1997). Especially in rural areas school districts where children often have less support at home, teachers play a critical role in schooling.

Therefore, to improve schools' quality and effectiveness the investigation of teachers' per-

ceptions is considered a simple, gainful and time-efficient method (Heck, 2000; Sezgin, 2002).

Many researchers suggest that school climate affects school effectiveness; hence teaching process, learning process and educational outcomes are affected by school climate ( Cohen 2006; Creemers & Reezigt, 1999) . Students' learning and performance depend mainly on the sort of school climate of their school. Many research types indicated that schools with an okay school climate are more successful than those in schools having a subpar school climate (Bulach & Malone, 1994). Therefore, recognizing the factors that facilitate an okay school climate is essential to understanding it's school effectiveness. As another indicator of school quality, parental involvement at all grade levels is a critical factor influencing education quality (Flaxman & Inger, 1991). It refers to both teachers' attempts to involve parents in ongoing classroom or school activities (Haynes, Corner & Hamilton –Lee, 1989) and parents' involvement in learning activities at home.

Research has concluded that the availability of computers (Baker, Gearhart & Herman 1994) and qualified school library media programs correlate positively with student achievement (Sivin-Kachala, 1998). Although educational technology has a significant positive effect on achievement, computers and the related electronic equipment required for connecting computers into network are generally absent or insufficient in rural areas. In this context, the quality of Education provided by elementary schools in rural areas is significant.

## STATEMENT OF THE PROBLEM/ OBJECTIVES

The study aimed to examine the quality of Education provided by the selected elementary schools in a rural area of Barotac Nuevo, Iloilo from teachers, students and administrators.

1.  What are the students demographic characteristics in terms of grade level, sex, parents' educational attainment, and parents' occupation?
2.  What are the demographic characteristics of teachers and administrators in terms of age, sex, highest educational attainment, number of years in service, and number of in service training attended?
3.  What is the quality of education provided by the school in line with the indicators (a)

school climate, (b) parental involvement, (c) curriculum implementation and (d) availability of technology and instructional materials as perceived by students when taken as a whole and when grouped as to grade level, sex, parents' educational attainment, and parents' occupation?
4.  What is the quality of education provided by the school in line with the indicators (a) school climate, (b) parental involvement (c) curriculum implementation and (d) availability of technology and instructional materials as perceived by teachers and administrators when taken as a whole and when grouped according to age, sex, highest educational attainment, number of years in service, and number of in-service training attended?
5.  Are there significant variations in the quality of Education provided by the school in line with the indicators (a) school climate, (b) parental involvement (c) curriculum implementation , (d) availability of technology and instructional materials as perceived by the students when grouped as to grade level, sex, parents' educational attainment and parents' occupation?
6.  Are there significant variations in the quality of Education provided by the school in line with the indicators (a) school climate (b) parental involvement (c) curriculum implementation (d) availability of technology and instructional materials as perceived by teachers and administrators when grouped as to age, sex, highest educational attainment, number of years in service, number of in-service trainings attended?
7.  What are the needs of rural schools in terms of (a) school climate, (b) parental involvement , (c) curriculum implementation, (d) availability of technology and instructional materials as quality education indicators?

## METHODOLOGY

This study adopted the descriptive research design which involves hypothesis formulation and testing - conducted in ten (10) Barangay elementary schools in Barotac Nuevo. ,The ten (10) schools were Tiwi E. S.( Elementary school), Tinorian E.S., Baras E.S., Lanas E.S., Palaciawan E.S., Talisay E.S., Igbong E.S., Patag E.S., Bagongbong E.S., and Cabilauan E.S. All are under the Department of Education,Region VI, Province of Iloilo, District of Barotac Nuevo, Barotac Nue-

vo, Iloilo. Also the ten public elementary schools were in the farthest barangays of the Municipality.The respondents of this study were selected from the ten (10) public elementary schools of Barotac Nuevo, Iloilo, school administrators, elementary school teachers and students from the 4th, 5th, and 6th grades. The ten (10) barangay elementary schools in Barotac Nuevo were selected as the focus of the study due to distance from the town proper being the ten(10) farthest schools from the Poblacion.Applying Simple Random Sampling Technique was applied in the selection of the students' respondents. 30% of the total student population of 1069 comprising grade IV, V, and VI from the ten(10) schools or 300 respondents became the sample size .On the other hand, all ten (10 ) school administrators and thirty(30) teachers handling grades IV, V, and VI were also included as the 40 respondents..

The research used the questionnaire adopted from Pervinoya Taneri and Cennet Engin-Demir, published in the International Online Journal of Educational Sciences in 2011, as the primary data gathering tool. The questionnaire focused on the quality of Education as provided by the schools in line with the indicators: a.) school climate (sc) b) parental involvement (pi) c.) curriculum implementation (ci) d.) availability of technology and instructional materials (a. of tech.& inst. materials). The researcher personally administered the questionnaire to all respondents. The first part of the questionnaire contained the respondents demographic characteristics, while part two was on the school's quality of Education according to the mentioned indicators. In the questionnaire, using the Likert scale to determine if the respondents agreed or disagreed in a verbally translated statement in the local dialect so students will understand it. Then they were given ample time to answer the questionnaire. The data gathered to statistical treatments such as frequency count and percentage, mean, t-test and one-way analysis of variance.

## FINDINGS

The three hundred(300) students' demographic characteristics in terms of grade level, sex, parents' educational attainment, and parents' occupation. 91 or 30.3% were grade IV, 114 0r 38% were grade V, and 95 0r 31.7% were grade VI. The majority were females numbering 202 0r 67.3% while male students were 98 or 32.7%. For mother's educational attainment, 7 or 2.3% were

elementary undergraduates, 21 or 7% were elementary graduates, 47 or 15.7% were high school undergraduates, 85 or 28.3% were high school graduates, 41 or 13.7% were college undergraduates, 97 or 32.3% were college graduates, and only 2 or 0.7% were Master's degree holders. For father's educational attainment, 23 or 7.7% were elementary undergraduates, 20 or 6.75% were elementary graduates, 45 or 15% were high school undergraduates, 69 0r 23% were high school graduates, 39 or 13% were college undergraduates and 104 or 34.7% were college graduates. It shows that parents of students were mostly college graduates. In terms of occupation, most mothers or 192 or 64% belong to other occupations: housekeepers, housemaids, babysitters. 43 or 14.3% were storekeepers, 36 or 12% were farmers, followed by 14 or 4.7% fish vendors, 13 or 4.3% were teachers and only 2 or 0.7% were fish catchers.

Likewise, most fathers belong to other occupations: seafarers, carpenters. There were 88 or 29.3% farmers, 25 or 8.3% were fishermen, 12 or 4% were storekeepers, 10 or 3.3% were fish vendors, and 2 or 0.7% were teachers. Fishing and farming were parents' occupations due to the barangay location either in coastal or hilly areas. The students' demographic characteristics show below.

Table 1 Demographic Characteristics of the students in terms of Grade level, Sex, Parents' Educational Attainment and Parents' Occupation

| Characteristics | f | % |
|---|---|---|
| **Students** | | |
| **Grade Level** | | |
| Grade IV | 91 | 30.3 |
| Grade V | 114 | 38.0 |
| Grade VI | 95 | 31.7 |
| **Sex** | | |
| Male | 98 | 32.7 |
| Female | 202 | 67.3 |
| **Mother's Educational Attainment** | | |
| Elementary Undergraduate | 7 | 2.3 |
| Elementary Graduate | 21 | 7.0 |
| HS Undergraduate | 47 | 15.7 |
| HS Graduate | 85 | 28.3 |
| College Undergraduate | 41 | 13.7 |
| College Graduate | 97 | 32.3 |
| Master's Degree | 2 | 0.7 |
| **Father's Educational Attainment** | | |
| Elementary Undergraduate | 23 | 7.7 |
| Elementary Graduate | 20 | 6.7 |
| HS Undergraduate | 45 | 15.0 |
| HS Graduate | 69 | 23.0 |
| College Undergraduate | 39 | 13.0 |
| College Graduate | 104 | 34.7 |
| **Mother's Occupation** | | |
| Farmer | 36 | 12.0 |
| Fishermen | 2 | 0.7 |
| Teacher | 13 | 4.3 |
| Storekeeper | 43 | 14.3 |

| | | |
|---|---|---|
| Fish Vendor | 14 | 4.7 |
| Other Occupation | 192 | 64.0 |
| **Father's Occupation** | | |
| Farmer | 88 | 29.3 |
| Fishermen | 25 | 8.3 |
| Teacher | 2 | 0.7 |
| Storekeeper | 12 | 4.0 |
| Fish Vendor | 10 | 3.3 |
| Other Occupation | 163 | 54.3 |

Likewise, out of 40 respondents compost of school administrators and teachers more than one half or 21 or 52.5% were from 36 -50 years of age, 11 or 27.5% were from age 21-35 and 8 or 20% were 51-65 years of age. In terms of age most of them were in their middle ages. Females dominated their number, 37 or 92% while only 3 were males. More than one half-finished Bachelor's degree with units in Master's, while 19 or 47.5% obtained a Bachelor's degree. 19 or 47.5% have been in the service for 31 -40 years. 9 or 22% had 11-20 years, 8 or 20% had 21-30 years and 4 or 10% got 1-10 experience. For in service training attended: 20 or 50% attended 1-15 training, 14 or 35% participated in 16-30 training and 6 or 15% had more than 31 training.

Table 2 Demographic Characteristics of Teachers and Administrator in Terms of Age, Sex, Highest Educational Attainment, Number of Years in Service and Number of In-Service Training Attended.

| Characteristics | *f* | *%* |
|---|---|---|
| Age | | |
| 51-65 | 8 | 20.0 |
| 36-50 | 21 | 52.5 |
| 21-35 | 11 | 27.5 |
| | | |
| Sex | | |
| Male | 3 | 7.5 |
| Female | 37 | 92.5 |
| | | |
| Highest Educational Attainment | | |
| Bachelor's Degree | 19 | 47.5 |
| Bachelor's Degree With units in Master's | 21 | 52.5 |
| | | |
| Number of Years in service | | |
| 1-10 | 4 | 10.0 |
| 11-20 | 9 | 22.5 |
| 21-30 | 8 | 20.0 |
| 31-40 | 19 | 47.5 |
| | | |
| Number of In-Service Trainings Attended | | |
| 31 and Above | 6 | 15.0 |
| 16-30 | 14 | 35.0 |
| 15 and below | 20 | 50.0 |

Considered as the three highest number of percentage on observations agreed by students when taken as whole: Number 1 is on curriculum implementation (ci) got a score of 282 or 94%, Teachers repeat the topics until all of the students learn. Number 2 is on curriculum implementation (ci) with a score of 280 or 93.4%, In the lessons such activities game, role playing, field trip, demonstration, presentation and experiments. Number 3 is parental involvement (pi) obtained a score of 279 0r 93%, The school required parents to attend school meetings.

On the other hand, students mostly disagreed on the following observations :Number 1 is on school climate(sc) with 181 0r 60.3%, English education is not attached in our school.Number 2 is on school climate(sc) got 151 or 50.3%, Education provided by our school does not help students follow the scientific and technological developments in the world. Number 3 is on school climate (sc)for a score of 138 or 46%, English course provided by our school is not sufficient for the students to speak, read, and write in English.

The following were the most agreed items made by teachers and administrators:

Number 1 is on parental involvement((pi) and curriculum implementation(ci) with a score of 40 or 100%. These are on statements: Parents are encouraged to attend social events in school; And in courses lecture method is used. Number 2 is on the following: school climate(sc) with scores of 39 or 97.5% In school, there is no different treatment between the female and male students.There are no corporal punishments and abuse in our school. Education provided by our school is sufficient for the students to be successful in high school.On parental involvement(pi) The school required parents to attend meetings. On Curriculum implementation(ci) Alternative assessment techniques are used when assessing student achievement. Teaching environment is arranged to arouse the interests of the students. The interests and abilities of the students are considered when arranging teaching environment. Teachers repeat the topics until all of the students learn. It is believed that all students can be successful and they are being encouraged for being successful. Number 3 is on school climate(sc) and Curriculum implementation(ci) with a score of 38 or 95%: There is no discrimination among students in our school. In the lessons such activities games, role playing, field trip, demonstration, presentation, experiments are given place.

Most disagreed observations of respondents were on the following :Number 1 is on School climate(sc) with a score of 34 or 85%English education is not attached importance in our school.Number 2 is on School Climate(sc) got 27 0r 67.5%Education provided by our school does not help students follow the world's scientific and technological developments. Number 3 is on school climate(sc) for a score of 21 or 52.5%

English course provided by our school is not sufficient for the students to speak, read, and write in English. Finally, parental involvement through the teacher's encouragement in attending social events in school was the most agreed item, since teachers know parents' value as active partners in attaining quality education.

Socially related activities in school where parents witness the children's participation have elevated children's self-esteem, and they have valued the time parents spent with them.

The school's quality of education in line with the indicators a.) school climate b.) parental involvement c.) curriculum implementation d.) availability of technology and instructional materials as perceived by the teachers and administrators when taken as a whole. Indicators school climate and availability of technology and instructional materials further described results as poor with a mean of 2.15 and an SD of 2.58 and mean of 2.28 and SD of 0.91. Fair were the descriptions for the indicators on parental involvement and curriculum implementation. A mean of 1.25 and an SD of 0.49 and a mean of 1.33 and SD of 1.47.

There were variations in education quality when t-test computation was applied as students perceived when grouped according to variables. When grouped according to sex, the results revealed no significant difference in terms of indicators: school climate, parental involvement, and availability of technology and instructional materials. However, on Curriculum implementation, responses were varied. Thus, there was a noted significant difference .When grouped according to grade levels, significant relationships were on parental involvement and curriculum implementation. However, School climate and availability of technology and instructional materials had no significant effects.

The variation of quality education using t-test computation perceived by teachers and administrators.

When grouped according to sex and highest educational attainment, no significant differences observed on the four (4) quality education indicators When grouped according to age and number of in service training attended, no observed significant variations in the four (4) indicators.

However, when grouped according to number of years in service, and number of in service training attended, a significant relationship existed in the parental involvement indicator.

When taken as a whole, students' perception of school climate (sc) and availability of technolo-

gy and instructional materials (a. of tech. & inst. Materials) was Very good (VG). With a mean of 3.66 and SD of 0.46 (sc) and also a mean of 3.66 and SD of 0.78 (a. of tech. and inst. Materials) respectively. Parental involvement and Curriculum implementation both got a description of Excellent(E). Mean of 4.42 and SD of 0.73 (pi) and mean of 4.42 and SD of 0.51(ci).Excellent were the descriptions given to parental involvement and curriculum implementation because parents were encouraged and required to attend social events and school meetings, In contrast, ,in the curriculum implementation teachers repeat the topics until all of the students learn. Teachers and administrators responses when taken as a whole showed a description of Poor(P) for both school climate with, mean of 2.15 and SD of 0.58 and availability of technology and instructional materials, having a mean of 2.28 and SD of 0.91

Fair were the descriptions for Parental involvement and curriculum implementation as given by teachers and administration, the same opinions with that of students were given under parental involvement hence a mean of 1.25 and SD of 0.49 (pi) and mean of 1.33 and SD of 0.47(ci) respectively

.Perceptions of students, teachers and administrators when taken as a whole in the quality of Education provided by schools as indicators. The next table shows the data.

| STUDENTS PERCEPTION | SCHOOL CLIMATE | | PARENTAL INVOLVEMENT | | CURRICULUM IMPLEMENTATION | | AVAILABILITY OF TECHNOLOGY AND INSTRUCTIONAL MATERIALS | |
|---|---|---|---|---|---|---|---|---|
| | F | % | f | % | f | % | f | % |
| Excellent | 36 | 12.0 | 224 | 74.7 | 222 | 74.0 | 79 | 26.3 |
| Very Good | 161 | 53.7 | 53 | 17.7 | 62 | 20.7 | 94 | 31.3 |
| Good | 101 | 33.7 | 15 | 5.0 | 13 | 4.3 | 106 | 35.3 |
| Poor | 2 | 0.7 | 3 | 1.0 | 3 | 1.0 | 16 | 5.3 |
| Fair | 0 | 0.0 | 5 | 1.7 | 0 | 0.0 | 5 | 1.7 |
| | | | | | | | | |
| M | 3.66 | | 4.42 | | 4.42 | | 3.66 | |
| SD | 0.46 | | 0.73 | | 0.51 | | 0.78 | |
| Description | VG | | E | | E | | VG | |

| Teachers and Administrators Perception | SCHOOL CLIMATE | | PARENTAL INVOLVEMENT | | CURRICULUM IMPLEMENTATION | | Availability of Technology and Instructional Materials | |
|---|---|---|---|---|---|---|---|---|
| | f | % | f | % | f | % | f | % |
| Excellent | 4 | 10.0 | 31 | 77.5 | 27 | 67.5 | 9 | 22.5 |
| Very Good | 26 | 53.7 | 8 | 20.0 | 13 | 32.5 | 14 | 35.0 |
| Good | 10 | 65.0 | 1 | 2.5 | 0 | 0.0 | 14 | 35.0 |
| Poor | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 3 | 7.7 |
| Fair | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |

| | M | 2.15 | 1.25 | 1.33 | 2.28 |
|---|---|---|---|---|---|
| | SD | 0.58 | 0.49 | 0.47 | 0.91 |
| | Description | P | F | F | P |

Scale    Description
4.21-5.00- Excellent
3.41-4.20- Very Good (VG)
2.61-3.40- Good (G)
1.81-2.60- Poor (P)
1.00-1.80- Fair (F)

When grouped according to variables students' responses in school climate indicators and availability of technology and instructional materials revealed Very good descriptions , However ,most of the responses were Excellent under parental involvement and curriculum implementation, varied curriculum implementation responses in terms of sex were found wherein t= - 2.015 p=0.045 . The grouping of students according to grade level and parents educational attainment revealed significant relationships. In curriculum implementation, Grade IV students perceived a mean of 4.17 and SD of 0.94 and mothers' An elementary graduate parent with a mean of 4.06 and SD of 1.23 also parents' occupation with mean of 4.20and SD of 0.90 for mothers who were storekeepers and mean of 4.17 and SD of 1.33 , fathers who were fish vendors proved a significant relationships . T-test result in the category of sex proved a significant difference between male and female students.

All responses on other indicators were insignificant. Differing subjects in the grade level , difference in sex and strategies employed by teachers among students, and parents' educational attainment were factors for variations of opinions under curriculum implementation. Moreover parents' occupation did not limit their school involvement in their children's' activities.

According to teachers and administrators grouping , school climate and availability of technology and instructional materials were rated very good and excellent for parental involvement and curriculum implementation. The teachers' and administrators' age, sex, educational attainment , number of years in service, and number of in service training attended, did not alter their perceptions. Also, T-test results in variables of teachers and administrators sex and highest educational attainment, proved insignificant as to the quality of education provided by schools, the same is true with the age and number of years in service , but in the age, number of years in service and number of in-service training attended, ANOVA computations gave a significant relationships in the parental involvement indicator wherein F= 4.373, p= 0.010 for number of years in service and in service training attended where

F= 3.500, p= 0.0041. On this premise, accumulated experiences between teachers and administrators who were younger in the service and teachers who have enough experience through the years of dealing with learners and the value of parents' involvement whether academic or social pointed out a difference in their perceptions.

## CONCLUSIONS

Based on the findings the drawn conclusions are the following:
1.  The teachers have adequate in service training, more years in the teaching field , but only a few had pursued and completed advanced studies.
2.  The school recognizes the role parents play in their children's academic success.
3.  The nature of parents occupation did not affect their interest to get involved in their children's activities.
4.  Parents are confident that teachers deliver quality education despite the schools 'geographical location .and limited resources.
5.  Overall- school ambiance manifests a "child-friendly school".
6.  David Kolb's experiential learning is real in this particular study.

## RECOMMENDATIONS

The following are the recommendations:
1.  Continued in service training for teachers and administrators as well as support for their professional advancement.
2.  Teachers' encouragement and parents' requirement in meetings and school events are acceptable practices to be considered.
3.  Parents are always aware of the value of their presence in schools, thus they deserve commendation.
4.   The community should always appreciate the significance of rural teachers in their role in students' success.
5.   There is a need for additional books and computers with internet connections to access of students and teachers to do research, and other information updates.
6.  Maintain overall ambiance for a safe, healthy and fruitful quality education among rural schools.

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# PROBLEMS AND COPING MECHANISMS OF JUNIOR HIGH SCHOOL STUDENTS WITH MODULAR DISTANCE LEARNING IN THE NEW NORMAL EDUCATION

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## ABSTRACT

**Coronavirus disease 2019 (COVID-19) is the latest pandemic with a high rate of morbidity and mortality worldwide. Several sectors of the government had been largely affected with imminent constraints on the usual way of doing things such as face-to-face activities. And the education was not exempted. The Department of Education has addressed the crisis through the implementation of different learning modalities in lieu of the regular face-to-face classes, and one of these is modular distance learning. This qualitative study aims the following: (1) to describe the problems encountered by the students in the modular distance learning, (2) to describe students' coping mechanisms with the problems they have encountered towards modular distance learning, and (3) to present the recommendations of the students out of the problems they have encountered in modular distance learning in the new normal education. In the study, data saturation was achieved after analyzing the reports of 15 Junior High School students on their learning experiences through modular distance learning in this new normal education which made use of thematic analysis and in-depth interviews. Qualitative content analysis of students' reports resulted in 13 codes, 11 sub-categories (SC), and 5 generic categories (GC) within the three main categories (MC). Results showed that all participants were unable to learn effectively due to difficulty in understanding the contents, difficulty in answering activities in the modules, and difficulty in the reading of the modules. They also experienced problems in punctuality of completion of their modules as they have to finish beforehand their assigned household chores. They also experienced noise problems around them while studying. Because of the problems experienced, participants sought help from their teachers, classmates, parents, siblings, and other family members. Out of these experiences, the participants recommended that modules should be prepared fit for the learners, that there should be provided learning materials in addition to the distributed modules, that household chores should not affect their learning, and that there should be a suitable place for studying at home.**

*Keywords: coping mechanism, modular distance learning, new normal education, learning modalities, COVID-19 pandemic*

## INTRODUCTION

The coronavirus COVID-19 outbreak disrupted life around the globe in 2020. As in any other sector, the COVID-19 pandemic affected education in many ways. Government actions have followed a common goal of reducing the spread of COVID-19 by introducing measures limiting social contact. Many countries suspended face-to-face teaching where possible, traditional classes are being replaced with books and materials taken from school (Gonzalez, Dela Rubia, Hincz, Comas-Lopez, Subirats, Fort, & Sacha, 2020).

Students, their parents, and educators around the world are feeling the extraordinary ripple effect of the novel coronavirus as schools are shutting down and quarantine methods are being ordered to cope with the global pandemic. While governments and health officials are doing their best in slowing down the outbreak, global education systems are collaborating to collectively respond and provide quality education for all during these difficult times.

The appropriate strategy in most countries is to use all possible delivery modes with the infrastructure that exists today. Use online tools to as-

sure that lesson plans, videos, tutorials, and other resources are available for some students and probably, most teachers. But also podcasts and other resources that require less data usage. Working with telecommunication companies to apply zero-rate policies can also facilitate learning material to be downloaded on a Smartphone, which more students are likely to have.

Forced to follow a "no vaccine, no classes" policy, the Philippines has implemented distance-learning programs that exacerbate existing inequalities (Santos, 2020).

Fortunately, there is a range of possible learning delivery modes available in the education system in the Philippines to face the challenge of distance learning imposed by the COVID-19 pandemic like: Online Distance Learning (ODL), Blended Learning (BL), Radio-Based Instruction (RBI), TV-Based Instruction (TVBI), and Modular Distance Learning (MDL). Using these learning delivery modes, the modification of contents that were previously taught face-to-face is easily conceivable. There are however, other important tasks in the learning process, such as assessment or self-directed learning that can still be challenging without the direct supervision of teachers.

For K-12 students, the most common form of distance learning is "modular distance learning", in which class modules are printed out for students to study on their own and submit to teachers for grading (Santos, 2020).

Radio and TV are also very powerful tools. The advantage we have today is that through social networks and WhatsApp or SMS, ministries of education can communicate effectively with students, parents, and teachers and provide guidelines, instructions, and structure to the learning process using content delivered by radio or TV. Remote learning is not only about online learning but about mixed media, with the objective of reaching as many students as possible (Saavedra, 2020).

Despites these powerful tools and learning modalities, the students in one of the National High Schools in the municipality of Tantangan, remain facing the gap in opportunities that they have the equal chances for a quality education due to problems that they encounter while studying through modular distance learning in this new normal situation of education.

Given the need to address these concerns, the researcher decided to pursue this study to determine the problems and coping mechanisms in modular distance learning amidst new normal education in the lives of Junior High School stu-

dents. Ultimately, this study wanted to know: (1) What are the problems encountered by the students in the modular distance learning in the new normal education?, (2) In what way do the students cope with the problems they have encountered towards modular distance learning in the new normal education?, and (3) What are the recommendations of the students out of the problems they have encountered in modular distance learning in the new normal education?. The researcher is seeking to gain a better and deeper understanding of the possible impact of the pandemic on their study process.

Answering these questions is complicated by the unique circumstances of COVID-19. Current school closures have added to the time that most students already spend at home without explicit face-to-face instruction from teachers. Meanwhile, students are scrambling to adapt to this new normal situation in education and parents are juggling work responsibilities with caring for and educating their own children. Students themselves are faced with isolation, anxiety about a deadly virus, and uncertainty about the future. In so many ways, the current situation is unprecedented for most people alive today (Soland, Kuhfeld, Tarasawa, Johnson, Ruzek, & Liu, 2020).

**Focus of the Study**

This study generally aims to determine the problems and coping mechanisms in modular distance learning amidst new normal education in the lives of Junior High School students, particularly in one of the National High Schools in the municipality of Tantangan.

Specifically, it aims to answer the following questions;
1. What are the problems encountered by the students in modular distance learning in the new normal education?
2. In what way do the students cope with the problems they have encountered towards modular distance learning in the new normal education?
3. What are the recommendations of the students out of the problems they have encountered in modular distance learning in the new normal education?

**Conceptual Framework**

This study was anchored on the Philosophy of Combalicer (2016), that an investment in the nation's economic recovery, social unity and political stability, and education calls for a sincere and full commitment by the political leadership and

all sectors of society to give the children and youth all the opportunities for acquiring and developing necessary skills, attitudes, values, and scientific creativeness to become self-sufficient, self-reliant, and ultimately lead a useful and productive life in a fast changing modern world. Likewise, President Rodrigo Roa Duterte (2017) said; that he will be protecting the sovereignty of the nation because he loves his country, the Philippines. He added that today's pandemic will really end but can be worsening anytime.

As illustrated on the schematic diagram in Figure 1 below shows the interconnectedness of the three variables, the problems encountered by the students in modular distance learning, the way how do the students cope with the problems they have encountered towards modular distance learning, and recommendations of the students out of the problems they have encountered in modular distance learning in the new normal education.

Likewise, the participants can also have their specific roles to perform in order to continue the process of learning amidst new normal education during the Covid-19 Pandemic. The Venn diagram on Figure 1 can be the clear explanation of the descriptions and research map of the study.
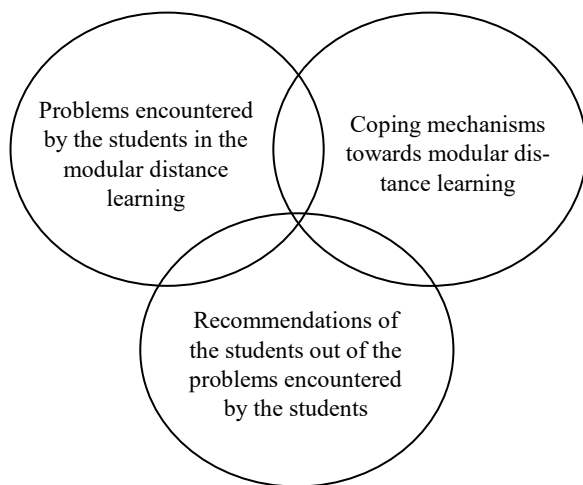


Figure 1. The Conceptual Framework of the Study

**Scope and Limitation of the Study**

This study focused on the problems and coping mechanisms with modular distance learning amidst new normal education in the lives of Junior High School students, particularly in one of the National High Schools in the municipality of Tantangan, based on their responses in the instrumentation.

This study was limited to fifteen (15) students in the Junior High School in one of the National High Schools in the municipality of Tantangan, South Cotabato, in the second quarter for the school year 2020-2021.

**Significance of the Study**

This study is needed because it is often heard and seen of students to complain about experiencing problems in their learning during the school year; a lot of students are used to handling these problems by themselves and implementing various coping mechanisms during this new normal education.

This study is significant for education in general. It aims to identify the problems encountered by the students and their coping mechanisms with modular distance learning in the new normal education during the COVID-19 pandemic situation. Students are encouraged to participate in the conduct of the study.

Through this study, it is hoped that educators and school administrators would be aware of their actions and ascertain appropriate strategies and plans to address the students' problems that influence the education of the students amidst this COVID-19 pandemic situation. It could be a great help to the teachers to become productive and competent in their teaching profession despite the situation.

Finally, the result of this study hoped that the problems encountered by the students would be addressed. It is believed that in case the education system will remain the same and until such time that the situation will be lifted in a most convenient way of learning, and if not totally back to normal, through this study, the government, ministries of education, and educators may help them to identify the scope or range that they can enforce in improving students' learning.

**Definition of Terms**

To make this study more understandable to those who might come across it, the following terms are defined operationally:

**Coping Mechanism** refers to the ability of the students to manage problems that they have experienced with modular modality in the new normal education during the COVID-19 pandemic situation.

**COVID-19 Pandemic** refers to the globally-spread of the novel coronavirus that disrupted the education system around the globe.

**Learning Modalities** refer to learning delivery modes available in the education system in the

Philippines to face the challenge of distance learning imposed by the COVID-19 pandemic like: Online Distance Learning (ODL), Blended Learning (BL), Radio-Based Instruction (RBI), TV-Based Instruction (TVBI) and Modular Distance Learning (MDL).

**Modular Distance Learning** refers to a learning delivery mode in the form of printed modules for the study of Junior High School students.

**New Normal Education** refers to the current learning set-up for the students due to the COVID-19 pandemic situation

**Students** refer to the fifteen (15) Junior High School learners who are studying in one of the National High Schools in the municipality of Tantangan, South Cotabato, the participants of this study.

## METHODOLOGY

The current study is aimed at determining the problems and coping mechanisms with modular distance learning in the new normal education during the COVID-19 pandemic situation in the lives of Junior High School students, particularly in one of the National High Schools in the municipality of Tantangan. Qualitative research studies allow the researchers to explore the phenomenon from an individual's personal experiences in varying situations and circumstances. The descriptive qualitative design was used to administer this study so that relevant responses could be sought to get insights into real-life experiences amidst COVID-19 pandemic situation.

### Research Design and Techniques

This qualitative study was conducted in Tantangan, South Cotabato, on January 12th – 22nd, 2021. The study used the phenomenological research design to accurately describe the phenomenon of students' experiences and on how they cope with the situation in the new normal education through modular distance learning during the COVID-19 pandemic, which made use of thematic analysis and In-depth Interview (IDI) to elicit qualitative research information guided by the list of practical strategies. The best method in qualitative research is to combine more appropriate techniques as the need arises in the actual conduct of the study (Wa-Mbaleka, 2017).

### Participants of the Study

The participants in the study were 15 Junior High School students in one of the National High Schools in the municipality of Tantangan. The purposive sampling, based on intended research outcomes, was performed to the students in the second quarter of the school year 2020-2021. The saturated number of 15 participants in this study is consistent with other similar relevant studies, and descriptions which suggest that to obtain a detailed insight into the phenomenon, the smallest acceptable sample size of interviews in all qualitative research is elsewhere determined at around fifteen, but not exceeding fifty participants (Lovric, Farcic, Miksic & Vcev, 2020).

### Locale of the Study

This study was conducted among the Junior High School students in one of the National High Schools in the municipality of Tantangan, South Cotabato.

### Sampling Techniques

The purposive sampling technique was the most suitable choice for the selection of the participants for this study, specifically in times of COVID whereby people are more under the global trauma of internalized fear and anxiety. In this case, according to Calmoren (2016), purposive quota sampling is appropriate to be used.

### Research Instruments

In qualitative research, the researcher is the primary research instrument. What the researcher brings to the investigation from his/her own background and identity should be treated as his or her bias (Maxwell, 2005). Since qualitative research is interpretative research, researcher biases, beliefs, and assumptions can intrude into the analysis of data (Strauss & Corbin, 1998). Social researchers should attempt to neutralize or bracket their biases through full disclosure (Altheide & Johnson, 1994).

According to Lincoln & Guba (1985), to minimize any personal bias on the results of this study, during each interview, the researcher restated and summarized information, questioning participants on the accuracy of the information to increase the credibility, and validity of the study results. After the taped interviews had been transcribed, the researcher asked each participant to review the content of his or her transcript for accuracy. In addition, the researcher consulted resources and Dr. Mildred F. Accad, his Professor in Qualitative Methods of Research throughout

the evolution of this study. Direction from the advisor helped the researcher to focus on relevant details that participants offered, which led the researcher to develop themes from the data. Lastly, the researcher included ample and relevant quotes from participants to substantiate the findings of the study (Maxwell, 2005).

## Data Gathering Processes

A letter of permission was secured from concerned authorities before the conduct of the study. A question guide was presented to the key informants for transparency which can establish trust and confidence from the target participants and their guardians in the case of the minors. Only those who are interested and are willing to be part of the study are considered in identifying the participants in the observance of ethical standards.

For this study, the primary sources of data were interviews which were conducted through face-to-face set-up. The researcher was the one who personally administered the in-depth interview in the respective home of the participants, where the health and safety protocols were observed for the protection of both the researcher and participants. The in-depth interview is conducted in one-on-one methods for at least thirty minutes (30 minutes) per key informant.

As a first step in the interview process, participants were reminded of the purpose of the study, research procedures, expected benefits, their right to withdraw from the study at any time, and protection of confidentiality. In an effort to develop a good rapport with respondents and to demonstrate familiarity with the topic (Creswell, 1994), the researcher identified himself as a Mathematics teacher at Bukay Pait National High School.

With participant approval, the interviews were audio-recorded to ensure a complete transcript (Merriam, 1998; Rubin & Rubin, 1995). Typed notes were taken during all interviews, enabling the researcher to track key points to return to later in the interview and for use during data analysis.

All participants were informed about the details of the study approximately a week before their scheduled interview so that they would have time to think about and prepare their responses to the initial questions. Participation in the study was voluntary, and students could withdraw from the study without any consequences.

To ensure confidentiality, the anonymity of participants was guaranteed, and only the researcher had access to research data.

In order to improve the credibility of study findings, participants' experiences were explored in depth during interviews. The audio recordings were carefully transcribed because accurate transcripts "are necessary for valid analysis and interpretation of interview data" (Mishler, 1986).

## Researcher's Positioning

This study made use of the non-numerical description to analyze responses in the perceived reality of a phenomenon. In presenting the coping mechanism in modular distance learning amidst new normal education in the lives of Junior High School students, particularly in one of the National High Schools in the municipality of Tantangan are presented in theme and concepts to point out the different angles of the issue although in the guide questions, all the situations are presented in a neutral ground. Purely verbose descriptions were used in presenting the results of the study. The researcher has grown in Tantangan and has worked in Bukay Pait National High School for the last 9 years using the traditional approach in teaching. In this case, it is a clear statement that the researcher brackets his biases in presenting only what was revealed and gathered in the conduct of the data gathering of information.

## RESULTS

The final organization of the data defines a total of 13 codes, 11 sub-categories (SC), and 5 generic categories (GC) within the three main categories (MC): (1) students' problems encountered while studying through modular distance learning during the new normal, (2) students' coping mechanisms with the problems they have encountered towards modular distance learning during the new normal, and (3) students' recommendations out of the problems they have encountered in modular distance learning in the new normal education.

## Students' problems encountered while studying through modular distance learning during the new normal

Participants described in their reports the problems they encountered while studying through modular distance learning during the new normal due to the COVID-19 crisis experienced in the country, based on their experiences (GC: "Problems with the modules") in Table 1. Thus, all fifteen (15) participants considered that using the modules, they were unable to learn effectively due to difficulty in understanding the contents of

the modules themselves (SC: "Teaching-Learning Process"). For example, students proved:

"Mahirap po maintindihan ang mga topics na nilalaman ng mga modules. Iba parin po pag may teacher na nagtuturo" (P.10).
*"It is difficult to understand the topics contained in the modules. It is still different when there is a teacher teaching" (P.10).*

"Hindi ko po naiintindihan ang ibang nilalaman ng modules kasi hindi naman po araw-araw nasa tabi ko ang aking mga magulang" (P.6).
*"I was not able to understand some of the contents of the modules because my parents were not with me all the time" (P.6).*

"Hindi ko po naiintindihan yong ibang information na nilalaman ng modules dahil wala pong nag i-explain na teacher, wala pong nag i-explain sayo para matuto" (P.4).
*"I do not understand the other information contained in the modules because no teacher explains, no one explains to you to learn" (P.4).*

Because of this problem encountered by the students on the content of the modules, all of the twelve (12) participants declared that they were not be able to answer all the questions in the activities given in the modules due to their difficulty to answer these questions or problems, e.g.,

"Hindi ko po maintindihan yong ibang mga tanong sa modules, yong iba kaya namang sagutan, pero yong iba po di na kayang sagutan" (P.2).
*"I do not understand the other questions in the modules, the others I can answer, but the others can no longer answer" (P.2).*

"Yong mga information po sa mga tanong sa modules, hindi ko po maintindihan ang iba kaya wala na po akong maisagot at naisa-submit nalang po na walang sagot" (P.3).
*"The information on the questions in the modules, I do not understand others so I cannot answer anything and just submit without an answer" (P.3).*

She also added that,

"Hindi naman po halos lahat ng tanong walang sagot, mayroon lang po talagang mga questions na masyadong malalim tapos hindi ko alam ang mga sagot" (P.3).
*"Not all questions are unanswered, there are only questions that are too deep, and I do not know the answers" (P.3).*

"Medyo nahihirapan po sa pag-answer sa mga tanong ng modules dahil halos mga explanations minsan ay hindi mo masyadong maintindihan. Tapos laging gumagawa ng mga sentences or paragraphs" (P.11).
*"It's a bit difficult to answer the questions of the modules because almost sometimes explanations that you do not understand very well. Then always make sentences or paragraphs" (P.11).*

Aside from the problems of the students in the content and difficulties to answer questions in the activity part of the modules, eight (8) of the participants also experienced problems in the printout of the modules (SC: "Printouts").

"Mahirap po basahin ang modules, masakit po sa ulo dahil maliliit po ang printout kasi naka booklet po" (P.1).
*"The modules are difficult to read; it hurts my head because the printout is small because it was booklet bound" (P.1).*

"Mahirap po basahin ang modules dahil maliliit po ang letters lalo na po sa gabi" (P.14).
*"It is difficult to read the modules because the letters are small, especially at night" (P.14).*

**Table 1. The process of data abstraction contained in the students' reports**

| Main Category (MC) | Generic Categories (GC) | Sub-Categories (SC) | Codes |
|---|---|---|---|
| Students' problems encountered while studying through modular distance learning | Problems with the modules | Teaching-Learning Process<br><br>Printouts | Difficulty in the content<br><br>Difficulty in answering the activities<br><br>Small font size of the text |
| | Problems while studying at home | Time schedule for Learning<br><br>Learning Environment | Household chores<br><br>Noises of the surroundings |
| Students' coping mechanisms on their problems encountered while studying through modular distance learning | Coping mechanisms for problems encountered | Seek for help<br><br>Accept responsibility | Understanding and answering the modules<br><br>Need to do the tasks |

| Students' recommendations on their problems encountered while studying through modular distance learning | Preparation of the modules | Fit to the learners | Content should be easily to understand |
| | | | Questions can be answered alone |
| | | Size of the texts | Readable texts |
| | | Additional references | Provide books, dictionaries and other learning materials |
| | Convenient learning | Enough time to study | Daily chores must not affect learning |
| | | Study area | Provide space at home that is conducive for learning |

In the reports, participants also experienced problems while studying at home (GC: Problems while learning at home) (Table 1). Thus, all participants said that they should first do the household chores assigned to them, and according to them, these tasks interrupt them from doing and answering their modules (SC: "Time schedule for learning"), e.g.,

"Mahirap po masunod ang oras dahil kailangan po munang gawin ang mga gawaing bahay gaya ng magluto, maghugas, maglaba, magwalis, tapos utusan ka pa nang kung anu-ano" (P.5).
*"It is difficult to keep track of time because you have to do household chores such as cooking, washing, sweeping, and then you are commanded to do something" (P.5).*

"Inuutusan pa po ako ni mama na maglinis ng bahay, bumili ng lulutuin" (P.1).
*"Mama even tells me to clean the house, buy food" (P.1).*

"Hindi ko po nagagawa ang aking mga modules kasi marami pong pinapagawa sa bahay eh, kaya sa gabi ko na nagagawa mga 7:00 PM hanggang 11:00 PM" (P.10).
*"I can't do my modules because I have a lot of work to do at home, so in the evening, I can do it around 7:00 PM to 11:00 PM" (P.10).*

Another problem encountered by the students is the noises of their surroundings while doing their modules (SC: "Learning Environment"). As many as ten (10) participants state their experiences about the problem, e.g.,

"Maingay po ang paligid ganyan, ingay ng mga bata, sa mga motor, ganyan habang nag-aaral" (P.13).
*"The surroundings are noisy like that, the noise of children, on motorcycles, like that while studying" (P.13).*

"May mga pamangkin po kasi ako at andyan habang nag-aaral ako, medyo magulo at maingay kasi sa bahay may tatlong pamilya po" (P.8).
*"I have nieces and nephews who are there while I am studying because it is a bit chaotic and noisy in our house with three families" (P.8).*

"Kapag nanonood po sila, minsan mawili din po ako sa panood, kaya di ko na po matapos ang aking modules. maingay din po sa bahay minsan" (P.12).
*"When they watch, sometimes I also enjoy watching, so I can't finish my modules. It's also noisy at home sometimes" (P.12).*

Despite the problems encountered by the students while studying through modular distance learning in this new normal situation of education, all participants were still grateful for the efforts made by the government to continue the opening of classes for the school year 2020-2021, e.g.,

"At least itinuloy po ang pasukan, kasi po kapag hindi nila itinuloy wala po kaming matutunang aralin, kahit ito ay sa pamamagitan na ng modular" (P.9).
*"And at least the entrance was continued because if they did not continue, we would not learn a lesson, even if it was through modular" (P.9).*

"Kahit papano po, maswerte parin naman kasi natuloy po ang pasukan dahil kung hindi, hindi pa po sana ako Grade 9 ngayon" (P.15).
*"Somehow, I was still lucky because the entrance continued because otherwise, I would not have been in Grade 9 now" (P.15).*

"Okey na din po dahil patuloy ang pag-aaral ngayong taon" (P.7).
*"It is also okay because the study continues this year" (P.7).*

Students' coping mechanisms with the problems they have encountered towards modular distance learning during the new normal

Participants based their reports on problems they have experienced while studying through modular distance learning in the new normal education; they were able to cope with it and be able to resolve it at the level of their ability (GC: "Coping mechanisms for problems encountered") in Table 1. Hence, all of the fifteen (15) participants have their own strategies in understanding and answering their modules (SC: "Seek for help"). For example, the students declared:

"Kapag nahihirapan na po akong sagutan ang aking modules, tinutulungan naman po ako minsan ni tita, minsan si mama. Pero kapag wala po sila nasasagutan ko naman po dahil gumagamit po ako ng Google sa internet" (P.11).
*When I have a hard time answering my modules, sometimes my aunt, sometimes my mom will help me. But when they are not there, I can answer because I use Google on the internet" (P.11).*

"Tinutulungan po ako ni mama sa mga di ko po alam sagutan at hindi ko maintindihan. Teacher naman po si mama" (P.6).
*"Mama helps me with those I do not know the answer to, and I do not understand. Mama is a teacher" (P.6).*

"Andyan naman po si mama at papa, pati po si tito na tumutulong sa akin at ginagamitan ko din po ng internet ang iba na hindi ko na po talaga alam" (P.14).
*"Mama and papa are there, as well as tito who helps me, and I also use the internet for others that I don't really know anymore" (P.14).*

"May mga libro din naman po kami sa bahay at nagagamit ko po sa ibang mga aralin na nasa modules" (P.4).
*"We also have books at home, and I can use them in other lessons in the modules" (P.4).*

"Nagtatanong nalang po ako sa mga kaklase ko, at sa aking guro sa mga di ko po talaga maintindihan sa pamamagitan ng messenger Group Chat (GC)" (P.5).
*"I just ask my classmates and my teacher those I don't really understand through messenger Group Chat (GC)" (P.5).*

All of the participants indicate that they have encountered a problem with their time schedule in answering their modules due to doing household chores. Because of this, they need to do these tasks first, so that they can start doing their modules (SC: "Accepting responsibility"), e.g.,

"Kailangang tapusin po muna lahat ang mga gawaing bahay para makapag umpisa na sa modules" (P.15).
*"You have to finish all the housework first to get started with the modules" (P.15).*

"Kaya ginagawa ko nalang sa gabi ang hindi ko matatapos sa araw upang maipasa po on time (P.5).
*"So I just do at night what I can't finish during the day to pass on time" (P.5).*

"Kapag nakatulog po ang aking batang kapatid, nagsasagot po ako sa aking module kasi isa at kalahating oras lang po, gising nanaman sya at kailangan nanamang bantayan" (P.8).
*"When my younger brother falls asleep, I answer my modules because it is only one and a half hours; he is awake again and needs to be watched again" (P.8).*

In terms of the small size of printouts of the modules (SC: Printouts), eight (8) of the participants states that they have nothing to do with it, e.g.,

"Itulog nalang po ang sakit ng ulo kapag sumakit dahil sa pagbabasa. Maliliit po kasi ang mga text sa modules" (P.13).
*"Just put the headache to sleep when it hurts because of reading. The text in the modules is small" (P.13).*

"Wala naman po akong magagawa sa maliliit na text ng modules kasi yon man po ang ibinigay nila" (P.9).
*"I can't do anything with the small text of the modules because that's what they provided" (P.9).*

Students' recommendations out of the problems they have encountered in modular distance learning in the new normal education
Based on the reports of the participants on the problems experienced by them and their coping mechanisms while studying through modular distance learning in new normal education, in terms of their problems with the modules (GC: "Preparation of the modules") in Table 1, they expressed their recommendations on the contents

of the modules that these should be easily to understand and can be answered even alone (SC: "Fit to the learners"), e.g.,

"Sana po, kahit ako lang ang gagawa at sasagot sa aking mga modules, makakayanan ko pong sagutan ang mga activities dahil madali lang pong intindihin ang pagkagawa ng mga modules" (P.11).
*"Hopefully, even if I am the only one who will make and answer my modules, I will be able to complete the activities in the modules since the way it is being made is easy to understand" (P.11).*

"Kaya dapat po, kahit studyante lang ang gagawa ng mga modules, maiintindihan po ang nilalaman nito" (P.3).
*"So, even if only the students answer the modules, it would be easy to understand its content" (P.3).*

In terms of the texts' size of the modules, the participants recommended that it should be readable (SC: "Size of the texts"), e.g.,

"Mas malalaki po sana ang print ng mga modules gaya po ng mga unang modules na ibinigay, naka print po sya sa buong papel na A4 at hindi po naka booklet type" (P.10).
*"I hope the print of the modules is bigger like the first modules provided, it is printed on the entire A4 paper and not booklet type" (P.10).*

All of the participants reported the same recommendation on the size of the texts in the modules.

Aside from the modules being distributed, the participants recommend that they be provided with books, dictionaries, and other learning materials that can help with their lessons (SC: "Additional references"), e.g.,

"Sana po may iba pang references na ibibigay maliban sa modules gaya po ng aklat" (P.4).
*"I hope there are other references that will be given besides the modules, such as the book" (P.4).*

"Kailangan may iba pa pong references na maaring gamitin, mga babasahin, libro po ganyan, dictionary po, para pag may mga words po na hindi maintindihan, magamit po ito" (P.6).

*"There must be other references that can be used, reading materials, books like that, a dictionary, so that if there are words that are not understood, they will be used" (P.6).*

In the opinion of the participants, it is important to have a niche to study even at home (GC: "Convenient learning") in Table 1, so they recommend that they want to have a place that is conducive for learning even when they are at home (SC: "Study area"), e.g.,

"Masmabuti po sana kung may sarili pong kwarto para doon sana magsagot po para hindi maisturbo" (P.3).
*"It would be better if you have your own room so that you can answer there so as not to be disturbed" (P.3).*

"Kailangan po talaga tahimik ang lugar para makapag isip po ng mabuti ng mga maaring isasagot sa mga tanong sa mga modules" (P.12).
*"The place really needs to be quiet so that you can think carefully about the possible answers to the questions in the modules" (P.12).*

Participants also recommend that in doing daily chores at home, these should not affect their learning (Enough time to study), e.g.

"Kapag gumagawa na po sana sa module, nakafucos nalang po sana sa pag sagot at hindi na po uutusan pang magluto, maghugas, ganon po sana" (P.2).
*"When I was working on the module, I would have just focused on answering and would not have been ordered to cook, wash. I hope so" (P.2).*

## DISCUSSIONS

According to research questions, this study aims the following: (1) to describe the problems encountered by the students in modular distance learning in the new normal education, (2) to describe students' coping mechanisms with the problems they have encountered towards modular distance learning in the new normal education, and (3) to present the recommendations of the students out of the problems they have encountered in modular distance learning in the new normal education.

Students' problems encountered while studying through modular distance learning during the new normal

Participants focused on the two main problems they encountered while studying through modular distance learning in the new normal education. According to them, these are their problems with modules and problems while studying at home.

**Problems with the modules**

Based on the results gathered through interviews with the participants, they have difficulty in understanding the contents of each module due to the lack of people to approach so that they can help them answer their lessons. In case that there are any, they were not there all time just to guide them in their studies. The participants indicate that it is still better to study in the classroom because all the time, their teachers are there to teach them and explain to them what they do not understand. This statement from the participants refers to the role of a teacher in the classroom.

According to the Ministry of Education (2021), teachers play vital roles in the lives of the students in their classrooms. The most common role a teacher plays in the classroom is to teach knowledge to children. Teachers teach in many ways including lectures, small group activities, and hands-on learning activities, and all pertinent knowledge is dispensed to the students. At present, these are not performed by teachers to the students to share the knowledge they need to know. Their parents and any member of their family are not enough to take on the role of a teacher. As a result, students experience difficulty in learning. Because of this, it can result in students being unprepared for higher levels of education.

Because of the current modular distance learning in the learning of the participants, in order to address their problems with the content of their modules and its printouts, it is good to know the ability of the students towards their learning materials to be used such as learning modules. Effective teachers need to understand and be committed to their students as learners by skillful in choosing learning materials, and how it is being prepared that is fit to them (Raguine, 2020).

The best features of self-instructional materials are described by Race (1989). He explained that self-instructional materials may come in the form of modules, self-learning kits, and are interaction centered rather than content-centered. These are written to entice the learner or get the learner interested and involved. Self-instructional materials develop the self-esteem of learners and give them a confidence boost. This is possible because the learners are given the framework within which to think things out for themselves. More importantly, the learners are given the credits for the newly acquired knowledge. Most self-instructional materials are purpose-built and are structured to meet the learners' needs. Race further emphasized that the main principle underlying the use of self-instructional materials is to make learning reactive, interesting, successful, and humane.

**Problems while studying at home**

Participants reported problems they have encountered while studying at home. The housework and noise of their surroundings are the problems experienced by the participants who cause it to hinder them in their learning through modular distance learning. They must finish beforehand their tasks at home so they can concentrate on their studies. In this situation, they need time to finish their modules. There were even incidents where they would take care of their younger siblings, do the dishes, wash clothes, and do other household chores. According to them, this is an obstacle to their learning. They added that they have a noisy environment, because of this they cannot avoid the noise inside their home, and there are their younger siblings and other members of their family. For this reason, they are forced to do the tasks assigned to their modules only during the hours when they finish their homework and most of their time is only at night.

**Students' coping mechanisms with the problems they have encountered towards modular distance learning during the new normal**

According to the participants' problems they experienced, they addressed them through coping mechanisms such as: (1) seeking help from their teachers and classmates through messenger Group Chat (GC), parents, siblings, and other family members to cope with the contents and in answering their tasks in the modules, and (2) accepting responsibility for household chores and other tasks.

These methods made by the participants are just a demonstration that they are still doing their part in their studies despite the problems that they are experiencing.

The coping mechanisms made by the participants were included in the study conducted by Walinga (2013) on the coping mechanisms used

by distance learning students indicated the four coping mechanisms: planful problem solving, accepting responsibility, seeking social support, and confrontive coping.

**Students' recommendations out of the problems they have encountered in modular distance learning in the new normal education**

With the problems experienced by the participants in the modules, they recommend that the contents should be easy to understand and fit the ability of the learners to learn it. Modules should be prepared considering their ability to understand its contents and be able to answer the given tasks by themselves. Prints of modules should also be considered readable. It must be printed according to the appropriate size.

In terms of the additional references, according to them, it is good that students will also have learning materials to use in addition to the modules distributed to them. These additional learning materials will serve as references for the lessons that they do not fully understand.

The participants' views on this are in accordance with the statement of Brown, et al., (2014), that people who learn to take basic ideas from new material, and organize them into a model of thinking, and connect the model to prior knowledge, show an advantage in the mastery of the lesson.

They also recommended that household chores should not affect their learning and these activities or tasks should be done outside of scheduled time for the study.

Based on the reports of the participants, they experienced problems with their learning environment. With this, they recommended that each student in their home should have a suitable place for study that they can stay even at night.

According to Dorman, Aldridge, & Fraser (2006), the environment is one of the most important factors affecting student learning. Students are likely to learn better when the environment is conducive to their learning.

## CONCLUSION

Participants experienced problems in their study through modular distance learning, such as difficulty in understanding the contents of their modules, difficulty in answering activities in the modules, and the readability of the modules' text due to the small size of the texts.

They also experienced problems with punctuality in the completion of their modules as they have to finish beforehand their assigned household chores. They've also experienced noise problems around them while studying.

From the problems experienced, participants were able to cope with them through seeking help from their teachers and classmates through messenger Group Chat (GC), parents, siblings, and other family members to cope with the contents and in answering their tasks in the modules as well as accepting responsibility for household chores and other tasks.

Out of these experiences, the participants recommended that:

1. modules should be prepared considering their ability to understand its contents and be able to answer the given tasks by themselves;
2. prints of modules should also be considered readable. It must be printed according to the appropriate size;
3. there should be provided learning materials to use in addition to the modules distributed to them;
4. household chores should not affect their learning, and these activities or tasks should be done outside of scheduled time for the study; and
5. every student in their home should have a suitable place for study that they can stay even at night.

## RECOMMENDATIONS

Based on the results and conclusions of the study, the researcher presents the following recommendations:

1. Students must identify different healthy ways and strategies to cope with the perceived problems with modular distance learning in the new normal education, such as the practice of taking a deep breath to refresh their minds before doing their tasks;
2. Teachers must guide and monitor their students regularly in order to give immediate action and help to students who are facing different kinds of problems with modular distance learning in the new normal education. One way to help their students is by giving them motivations to face their struggles in life optimistically;
3. Guidance Office could implement and encourage having a peer and family support system in order for the students to reduce their

problems by sharing their struggles and perhaps give assistance;

4. School should maximize the use of their learning resources for the learners;

5. Parents could provide guidance, advice, and support, which may include moral and financial. In this case, it may lessen the child's problem and pressure; and

6. Future researchers can have an in-depth study on understanding the ways to cope with the perceived problems with modular distance learning in the new normal education where students can easily apply and relate it to their experiences.

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## ACKNOWLEDGMENT

# EMPLOYABILITY OF THE SENIOR HIGH SCHOOL GRADUATES: PERSPECTIVES OF THE GRADE 12 STUDENTS AND HUMAN RESOURCE OFFICERS

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## ABSTRACT

**This paper generally aimed to analyze the perspectives of the labor market and the Senior High School graduates on their employability and to uncover the areas for improvement and boost the chances of employment objectives. This study utilized a mixed method of descriptive and qualitative research design using questionnaires and interview guide as the main instrument in gathering of data. The study reveals that the perspectives of the Grade 12 students on their employability are likely to get employed. However, in terms of the perspectives of the labor market, they are least likely to get employed. These are based on the result from the data gathered through the administered survey questionnaire and interview guide. After a thorough analysis of the findings revealed in this study, it was concluded that senior high school graduates are somehow not yet ready to proceed to employment. Hence, the researcher feels the need to enclose an action/intervention plan which is to let the Senior High School students continuously improve their skills and competencies by attending trainings and seminars or let them proceed to higher education in order to improve their employability skills. The researcher believed that the reviewed related studies has contributed significantly to the present study because it formed the foundation of the researcher's concept and provided support to the data as herein presented.**

## INTRODUCTION

The enactment of the RA 10533 or the Enhanced Basic Education Act of 2013 has faced a lot of challenges and oppositions from different groups including legal challenge to its constitutionalization. Among the proposed rationale for this educational reform is that Senior High School graduates may be expected to become full-fledged contributors to social development and nation-building by allowing them to enter the workforce after finishing senior high school level or may engage in entrepreneurial activities. This study measures the likelihood of attaining this objective by evaluating the skills and knowledge acquired by the senior high school students and the perceptions of the labor market in hiring senior high school graduates.

Restructuring the basic educational system through K to 12 program is a tough but strategic move by the government. This is to ensure that the country produces competent graduates who can serve as the foundation for a highly skilled and employable labor force. Several fundamental issues encountered from the previous educational system prompted for this reform; (1) poor quality of education which reflects through student's low scores in the National Achievement Test (NAT) and Trends in International Mach and Science Study (TIMMS); (2) the country's old curriculum was considered too congested and lacked practical application. Students do not get enough instructional time to learn and missed the chance to be prepared for actual professional work; (3) High school graduates of the old curriculum are too young for labor force. While Filipino professionals who have finished the 10-year basic education may not be acknowledged in many parts of the world due to educational requirements set by some international accreditation agreements.

The Enhanced Basic Education Act of 2013 or RA 10533 was designed to address the many

issues in basic education. The program replaced the 10-year basic education curriculum by making kindergarten compulsory and adding two years at the secondary level. Thus, k12 program has a total of 13 years in basic education – kindergarten, six years of elementary education, four years of junior high school and two years of senior high school. The purpose is to provide enough time for mastery of concepts and skills, development, employment, and entrepreneurship.

In this study, Senior High School is the last phase in the implementation of the K-12 program. K-12 extends compulsory schooling to grades 11 and 12, adding two years to secondary school. It allows the students to choose a specialization based on aptitude, interests, and school capacity. The student's choice of track or strand will define the specialization subject he/she will take in senior high school. They may choose from academic, sports, arts and design, and technical vocational livelihood tracks. This addition of two more grade levels will equip learners with the necessary skills, knowledge, and values needed for a successful future in the fields of Employment, Entrepreneurship, Skills Development and Higher Education.

While employability refers to the attributes of the SHS graduates that makes them able to gain and maintain employment, labor market refers to the supply and demand for labor in which employees provide the supply and employers the demand. However, labor market or employers expect graduates to demonstrate a range of skills and attributes that include teamwork, communication, leadership, critical thinking, problem solving, and often managerial abilities or potential (Lowden et al.,2011). Further, perspective refers to the views and perceptions of the human resource officers on the employability of the senior high school graduates. While skills refers to the ability of the students to perform duties and responsibilities in the labor market/firm.

To achieve its basic objective, this study (i) looks into the SHS students' basic profile, (ii) assess the perspectives of the senior high school graduating students on their employability in terms of different skills (iii) find out the perspective of the human resource managers/officers on the employability of the grade 12 students, and (iv) design an intervention plan to improve the employability skills of the learners. The researcher was able to conduct a survey to four group of SHS graduating students focusing to stand alone senior high school in Ormoc City. The key information interviews (KIIs) with the participating human resource managers/officers gathers the observations and perspectives of firms pertaining to SHS graduates during their work immersion.

## OBJECTIVES OF THE STUDY

This study is intended to determine the perspectives of the Grade 12 students and Human Resource Officers on the employability of the Senior High School graduates.

Specifically, it sought to answer the following:
1.  Determine the profile of the Grade 12 students in terms of:
    1.1 age;
    1.2 sex;
    1.3 track or strand; and
    1.4 most probable exit they would choose once graduated from Senior High School
        1.4.1  proceed to higher education;
        1.4.2  technical-vocational career;
        1.4.3 entrepreneurship; and
        1.4.4 employment
2.  Assess the perspective of Grade 12 Senior High School Students on their employability in terms of the following skills:
    2.1 communication;
    2.2 problem-solving;
    2.3 team work;
    2.4 planning and organizing;
    2.5 creativity/Innovation;
    2.6 independent study;
    2.7 numeracy;
    2.8 ICT;
    2.9 self-management skills; and
    2.10 time management/prioritizing

3.  Find out the perspective of the Human Resource Management on the  employability skills of the Grade 12 Senior High School students.
4.  Design an intervention plan to improve the employability skills of the learners

## REVIEW OF LITERATURE

This section presents the works of some researchers which are related and relevant to this study.

Employability is a word that can be used in different contexts and with different meanings. In this study, employability is discussed as it relates

to the different skills acquired by a senior high school graduates to land a desired job.

Yorke, M. (2004) defined employability as a set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy.

K to 12 Curriculum prepared students to be globally competent individuals. Moreover, it was emphasized in the senior high school program the importance of career decision and the four curriculum exits. However, Bacaling, M.D.B. (2018) presented an analysis on career decision that majority of the senior high school graduating students were geared towards pursuing their studies to higher education. While some of the students wanted to find a job after graduation.

According to Maja Curic Drazic, et al. (2018) employability is one of the core concepts for the future career. Overtoom (2000) supported this idea and stated that acquiring various skills enable individuals to prove their value to an organization and act as a key to job survival. A study of Klaus (2010), found that 75% of long-term job success depends on individual skills, while only 25% is dependent upon technical knowledge.

Wibrow, (2011) and Deloza (2013) claimed that employers seek employees who are adaptable and have skills beyond technical knowledge. Labor markets or employers need reliable, responsible workers who have the employability skills that help them fit into and remain in the work environment (Robinson, 2000). Although there is a widespread drive to develop employability skills of students, there are still gaps between graduate workplace performance and employer expectations (D. Jackson, 2013). Many students leave education without the requisite skills to succeed in the adult work world based on the study of Zisner (2003).

To boost the employability and entrepreneurial ability of Filipino graduates, they need to improve different skills such as but not limited to communication, problem-solving, team work, planning and organizing, creativity/innovation, independent study numeracy, ICT, self-management skills, and time-management/prioritizing. With the help of K-12 curriculum, the students were trained well to acquire various skills to be successful in work industry.

Robinson (2000) concluded that employability skills can be taught in both school and employment settings. And in order for students to learn and develop those skills, teachers must first understand those skills so that they can best implement them into the classroom (Zinser, 2003).

Based on the study of Buhler (2012), one way to assist in the development of employability skills in the classroom is to have teachers partner with business to improve the preparedness of the workforce. Labor firms can provide insights into the required skills, they can also provide opportunities for students to get practical experience in the form of internships and work immersion.

Ali et al. (2014) suggested that, in the competitive world, graduates not only need to be successful in academic achievements, but also need to possess the relevant skills in order to be employed by future employers, one of the factors to gauge the effectiveness of an academic institution is through the employability of its graduates.

A survey conducted by the Philippine Institute for Development Studies, on hiring preferences wherein employers who were using jobstreet.com website were asked if they will still hire Senior High School graduates. The survey revealed that majority of the employers were indefinite about hiring senior high school graduates. They said that they are still evaluating the company's readiness and the availability of positions.

Harvey (2000) claimed that most employers are looking for graduates who are proactive, can use higher level skills including analysis, critique, synthesis and multi layered communication to facilitate innovative teamwork in catalyzing the transformation of their organization.

ORJI, Nna Sunday 2013, as a result of the study of assessment of employability skills development opportunities for senior secondary school, it was recommended that schools should create environments that enhance students' acquisition and development of job or employment-related skills.

Thus, the aforementioned studies and literature are related to the present study because some variables and problems are being investigated in this current study. It relates to this present study since it discusses the employability of Senior High School graduates and it also covers the feedbacks of the labor market towards the performance of the students. This study also attempts to contribute literature established by previous studies and uncover facts about how ready are the Department of Education in the deployment of the Senior High School graduates to the labor market.

## RESEARCH METHODOLOGY

This chapter presents the method used in this study. It discusses the research design, research locale, research respondents, research instrument, data gathering procedure, data scoring and statistical treatment of data.

### Research Design

The mixed method of descriptive and qualitative research design was employed in this study. This design is deemed appropriate because it provides a careful and exhaustive analysis in determining the perspectives of the senior high school students and the perspectives of the human resource officers on the employability of the senior high school graduates, which provides the basis for decision-making on designing an intervention plan to improve the employability skills of the learners.

### Research Locale

The study was conducted in Ormoc City Senior High School (OCSHS) , where the researcher is currently teaching Personal Development, Entrepreneurship, and Principles of Marketing subjects. OCSHS is a stand alone senior high school in Ormoc City Division, located in Don Felipe Larrazabal, Ormoc City, comprising of 1 principal, 2 assistant principals, 85 teachers, 10 non-teaching personnel, and 1,611 students from Grades 11-12.

### Research Respondents

The respondents in this research were selected through a stratified random sampling. There are two sets of respondents, one consist of the partner agencies of the Ormoc City Senior High School or the human resource officers from different labor firm and the other set consist of the students of Ormoc City Senior High School which composed of one section per strand of Grade 12 in Accountancy, Business, and Management (ABM) with 16 male and 31 female, Humanities and Social Sciences (HUMSS) with 7 male and 34 female, and Science, Technology, Engineering, and Mathematics (STEM) with 22 male and 23 female, and General Academics (GA) with 34 male and 11 female. A total of 178 grade 12 students with 79 males and 99 females.

### Research Instrument

A well-constructed and adapted questionnaire taken from the study of ORJI Nna Sunday of Nigerian Educational Research and Development Council, titled "Students Employability Skills Questionnaire (SESQ)" were used to get the desired information from the students and same set of questionnaire will be used to gather the perspective of the human resource officers of the labor market. Another adapted interview guide from the study of the Philippine Institute for Development studies titled "Senior High School and the Labor Market: Perspectives of Grade 12 Students and Human Resource Officers" (December 2018) were also used to gather data from different labor institutions and human resource officers with regard to their perspectives on the employability skills of the senior high school graduates.

The HR managers/officer interview guide contains five parts; a. Profile of the firm/establishment, b. Perspectives on qualifications of K-12 graduates, c. Measures done to adjust hiring policies/guidelines, d. Actual hiring, and e. Overall perspective. On the other hand, the SESQ questionnaire contains ten skills category and each skill has its related indicators and has its corresponding series or numbers on the left column. On the right column written are the scales of 1 to 5 to be checked by the respondents wherein 5 is Excellently, 4 is Very well, 3 is Somewhat, 2 is Just a little, and 1 is Not at all. On the lower part are the descriptions of each employability skills. On the other hand, the interview guide for the human resource officers contains several qualitative questions that they are going to answer briefly and honestly.

### Data Gathering Procedure

In eliciting the data, the researcher prepared the survey questionnaires and administered directly to each students from different strand, with the approval of their advisers. Their answers to the survey questionnaires were immediately collected by the researcher and subjected for analysis.

The researcher also administered the same set of questionnaires to the human resource officers, particularly to the school's partner agencies for work immersion in Ormoc City, together with the interview guide or key information interviews (KII) in which they may prefer to state verbally or write down their answers to the interview guide paper.

The answered questionnaires were gathered after one to two days, giving them enough time to accomplish the questionnaires. Answers were collected by the researcher and subjected for analysis.

## Data Scoring

To determine the perspectives of both the human resource officers and the Senior High School students on their employability after graduating in Ormoc City Senior High School, the following standard criteria were used to get the employability skills in Communication, Problem-solving, Team work, Planning and organizing, Creativity/Innovation, Independent study, Numeracy, ICT, Self-management skills, Time management/prioritizing.

| Range Value | Description |
|---|---|
| 4.3 - 5.0 | Excellent |
| 3.5 - 4.2 | Very Well |
| 2.6 - 3.4 | Somewhat |
| 1.8 - 2.5 | Just a little |
| 1.0 - 1.7 | Not at all |

To determine the extent to how much students are confident in getting employed after their senior high school studies, the following total score range values of all the skills measured and the corresponding qualitative descriptions were used.

| Score Range Value | Qualitative Description |
|---|---|
| 43 - 50 | Excellent |
| 35 - 42.5 | Very Well |
| 2.6 - 3.4 | Somewhat |
| 1.8 - 2.5 | Just a little |
| 1.0 - 1.7 | Not at all |

## Statistical Treatment of Data

All the responses gathered during the survey was recorded, analyzed, and tabulated using descriptive statistics such as mean, range, relative frequency and percentage. To assess the perception of the Grade 12 Senior High School students on their employability and the perception of the labor market, the weighted mean in each skills statements was applied and the average weighted mean in every skills measured was applied.

## FINDINGS

The data were analyzed and the following findings were formulated in accordance with the specific questions given under the objectives of the study:

Profile of the Grade 12 students. As to age, majority of the students are 18 to 19 years old and most of them are female from four different strands namely, Accountancy, Business and Management (ABM), Science and Technology, Engineering and Mathematics (STEM), General Academic Strand (GAS), and Humanities and Social Sciences (HUMSS). Most of them chose to pro-

ceed to higher education as their probable exit once graduated from senior high school.

Perspectives of the Grade 12 Senior High School students. Through self-assessment of the senior high school students on their employability based on the different skills measured, results revealed that the grade 12 students are excellent when it comes to independent study.

Perspectives of Human Resource Officers. Using the same survey questionnaire, human resource managers/officers were asked to give their perspectives on the employability of the senior high school graduating students based on the different skills measured. Results revealed that most of the students are performing well when it comes to team work.

**Column A: Perspectives of the Grade 12 Senior High School Students on their Employability**
**Column B: Perspectives of the Human Resource Management on the Employability Skills of the Grade 12 Senior High School Students**

| No | Skills Statements | Column A | | Column B | |
|---|---|---|---|---|---|
| | | Grade 12 Students | | HR Management | |
| | | WM | Description | WM | Description |
| **Communication** | | | | | |
| 1 | Can speak and write clearly so that others understand. | 3.7 | Very Well | 3.0 | Somewhat |
| 2 | Can read and understand information in words, graphs, diagrams, or charts. | 3.9 | Very Well | 3.6 | Very Well |
| 3 | Listen and ask questions in order to understand instructions and other people's points of view. | 4.0 | Very Well | 3.4 | Somewhat |
| | **AWM** | **3.9** | **Very Well** | **3.3** | **Somewhat** |
| **Problem-solving** | | | | | |
| 4 | Can assess situations, identify problems and evaluate solutions. | 3.4 | Somewhat | 3.2 | Somewhat |
| 5 | Recognize the many dimensions of a problem and can determine a root cause. | 3.2 | Somewhat | 3.0 | Somewhat |
| 6 | Not afraid to be creative when solving problems. I like to make sure the solution works in case improvement is required. | 3.3 | Somewhat | 3.4 | Somewhat |
| | **AWM** | **3.3** | **Somewhat** | **3.2** | **Somewhat** |
| **Team Work** | | | | | |
| 7 | Can work/cooperate well with other students and team leaders. | 4.0 | Very Well | 4.6 | Excellent |
| 8 | Can lead a team work at school. | 3.3 | Somewhat | 3.4 | Somewhat |
| 9 | Have the skills of negotiating/persuading. | 3.5 | Very Well | 3.6 | Very Well |
| 10 | Place much value on respect for others. | 4.5 | Excellent | 3.8 | Very Well |
| | **AWM** | **3.8** | **Very Well** | **3.8** | **Very Well** |

| | Planning and Organization | | | | |
|---|---|---|---|---|---|
| 11 | Good at managing time and priorities – setting timelines. | 3.4 | Somewhat | 3.6 | Very Well |
| 12 | Good at taking initiative and making decisions. | 3.5 | Very Well | 3.6 | Very Well |
| 13 | Good at being resource-ful. | 3.5 | Very Well | 3.8 | Very Well |
| | **AWM** | **3.5** | **Very Well** | **3.7** | **Very Well** |
| **Creativity/Innovation** | | | | | |
| 14 | When doing a task, often devise new ways to do it faster and better. | 3.6 | Very Well | 2.3 | Just a little |
| 15 | Can usually come up with creative and innovative ideas during group work. | 3.4 | Somewhat | 3.0 | Somewhat |
| | **AWM** | **3.5** | **Very Well** | **2.8** | **Somewhat** |
| **Independent Study** | | | | | |
| 16 | Like to learn new things | 4.7 | Excellent | 3.8 | Very Well |
| 17 | Learns from mistakes and can accept feedback. | 4.5 | Excellent | 3.6 | Very Well |
| 18 | Can identify and access learning opportunities. | 4.4 | Excellent | 3.8 | Very Well |
| | **AWM** | **4.5** | **Excellent** | **3.7** | **Very Well** |
| **Numeracy Skills** | | | | | |
| 19 | Can use basic mathematical functions of plus, minus, multiply, and divide. | 4.4 | Excellent | 2.8 | Somewhat |
| 20 | Can solve problems using math and science concepts. | 3.7 | Very Well | 2.8 | Somewhat |
| | **AWM** | **4.05** | **Very Well** | **2.8** | **Somewhat** |
| **ICT Skills** | | | | | |
| 21 | Familiar with word processing. | 3.7 | Very Well | 3.0 | Somewhat |
| 22 | Can browse the internet for information for study and to do assignments. | 4.2 | Very Well | 2.8 | Somewhat |
| 23 | Can familiar with the use of emails to send and receive mails. | 3.8 | Very Well | 2.6 | Somewhat |
| | **AWM** | **3.9** | **Very Well** | **2.8** | **Somewhat** |
| **Self-management Skills** | | | | | |
| 24 | Can learn very quickly. | 3.6 | Very Well | 3.2 | Somewhat |
| 25 | Have high sense of direction. | 3.6 | Very Well | 3.0 | Somewhat |
| | **AWM** | **3.6** | **Very Well** | **3.1** | **Somewhat** |
| **Time Management/Prioritizing** | | | | | |
| 26 | Setting priorities is not a problem. | 3.6 | Very Well | 3.4 | Somewhat |
| 27 | Good at time management; in work where often meet deadlines. | 3.4 | Somewhat | 3.6 | Very Well |
| 28 | Can manage/do several tasks at once. | 3.3 | Somewhat | 3.0 | Somewhat |
| | **AWM** | **3.4** | **Somewhat** | **3.3** | **Somewhat** |
| | **TOTAL SCORE of AWM** | **37.45** | **Likely to Get Employed** | **32.5** | **Least Likely to Get Employed** |

As shown in column A of the table, the total score of all the average weighted mean of all the skills is 37.45 which means that based on the self-assessment of the grade 12 senior high school students, they are 'Likely to get Employed'. On the other hand, column B shows the total score of all the average weighted mean of all the skills is 32.5 which means that based on the assessment of the human resource managers/officers, the grade 12 senior high school students are 'Least likely to get employed'.

To discuss more of the perspectives of the human resource officers, the following feedback were gathered using the key information interview (KII) guide with an open-ended questions.

**Willingness to Hire SHS Graduates**

When asked if they were willing to hire SHS graduates, four among the participating firms answered no. All of them almost have the same reasons that these graduates are still unrefined and not ready for a bigger responsibility. They believe that they are not yet competent enough. On the other hand, one of the respondents answered yes, however, it would still depend on the needs of a particular job.

**Types of Jobs Available to Hire SHS Graduates**

The firm's response on the type of jobs available to SHS graduates was service technician for automotive given that this firm offers an automotive servicing. This type of job will fall under the PSOC's (Philippine Standard Occupational Classification) lower major occupational group, requiring second level or middle level skills which is also expected to be acquired by a senior high school graduates.

**Qualifications and Competencies**

Firms believes that senior high school students has to acquire maturity and full sense of responsibility. Given the age of the SHS graduate, most of them still needs time and will to become fully responsible. As well as they need to take-up more subjects that are closely related to the job they desire and learn more about management especially in honing their analytical skills and ethical framework. They also believe that it is a must for a SHS graduate to have a thorough understanding about the job, specifically in accounting especially in journalizing, posting trial and balance, walling financial statement to closing, which are the basic knowledge and a general purpose in accounting framework. However, one of the participating firms believes that SHS graduates needs to have more skills, Civil Service Commission eligibility, and prepare the credentials required for the applied position.

**Adjustments made/to be made in Hiring Policies**

The discussion on qualifications and competencies tells about the hiring policies of the firms. When asked if they are willing to adjust their hiring policies for SHS graduates, most of them answered no. Two of the respondents did not give any reason or no reason to disclose. While one stated that, the SHS graduates must have the most essential foundation of competencies to give them a visualization of real-life situation in a workplace. Another firm said that since they are a government-owned and controlled corporation in the Philippines, they are bound to follow what has been set by the government and/or the corporation. For them, if they are required to hire SHS graduate, they will do so. On the other hand, one of the participating firm answered yes and are willing to adjust their hiring policies for SHS graduate for the condition that there should be a support program for them to get all the NC III bookkeeping certificate from TESDA.

**Number of SHS Graduates who Applied and were Hired by Firms**

One of the participating firms has actually hired one of a senior high school graduates and were given a position as service technician. According to the human resource officer, this graduate has shown the skills that is needed for the job, was willing to learn and underwent to skills trainings to be fully equipped. This SHS graduate was still currently employed by the firm and performing well.

**General Comments on Work-readiness of SHS Graduates**

Most of the participating firms perceived SHS graduates as not work-ready. They are concerned on the lack of technical and behavioral skills of the senior high school graduates as well as the lack of length and quality of work immersion to be able to connect to the labor world. This finding was substantiated by Mendoza (2018) who said that work immersion is a key subject under the senior high school curriculum that may be conducted in different ways and time frame as needed by the learners.

In spite of the work immersion completion, they still lack of work skills. Given their age and level of maturity, there is still a need to enhance their behavior and values. Human resource officers believed that senior high school graduates needs to be trained more especially on self-development and having enough confidence.

## CONCLUSION

After a thorough analysis of the findings revealed in the study, it was concluded that:
1. Senior high school students' skills in communication, problem-solving, team work, planning and organizing, creativity/innovation, numeracy, ICT, self-management, independent study, and time-management skills are ranging of between 'somewhat' to 'very well' which means acceptable.
2. Based on the self-assessment of the senior high school graduating students on their skills, the result revealed that they are 'likely to get employed'.
3. While based on the assessment of the human resource management to the performance of the students during their work immersion, senior high school students are 'least likely to get employed'.
4. Most of the participating firms believes that in spite of the work immersion completion, senior high school graduating students still lack of work skills, qualifications, and competencies needed to be offered a job.

## RECOMMENDATIONS

The following are the corresponding recommendations formulated based on the results of the study:
1. Senior high school students should continuously improve the different skills needed to be more competitive and work-ready. They may also proceed to higher education to better improved themselves.
2. Keeping up the best practices and constant practice/application of learnings may enhance the skills of the learners. Exposing the learners to the real-life work activities and application may be a great idea.
3. Students must fully understand the reality in labor market. Keeping their self-perspectives and understanding the labor firm's/market's perspectives at the same time is the best way to improving themselves and preparing to be highly competent economic contributor.
4. Strengthening TVET integration is also part of the K-12 implementation in which graduate students can obtain Certificates of Competency (COC) and/or National Certificate Level I or II (NCI or NCII) provided that learner passes the competency-based assessment of TESDA. It must not end up there, SHS gradu-

ates may continue attending trainings, seminars and other skills development programs that will help enhance his/her skills and knowledge, and able to gather enough qualifications and competencies needed for the job he/she is applying for.

5.  Same study should be conducted again with a bigger population and locale. This is to view and gather varied results with case to case bases. This may include the location or area of the schools, and the available firms within the area to which the students are deployed.

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# INFORMATION AND COMMUNICATIONS TECHNOLOGY OWNERSHIP, CONNECTIVITY AND CAPABILITY OF FACULTY MEMBERS: INPUT TO A TRAINING PROGRAM

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## ABSTRACT

In today's difficult situation characterized by highly contagious environment, educational institutions have to resort to alternative means of learning to suit to the circumstances and needs of time. In order to materialize the plan, teachers who are tasked to do the job need to prepare. Inspired by the countless endeavors taken by other sectors to fight COVID 19, this study aims to determine the ICT ownership, connectivity and capability of ISCOF Faculty Members and to design a training program. The study employed the descriptive–survey research design utilizing the 129 randomly selected faculty members. Data were gathered using the duly-validated research instruments and were analyzed using the frequency count, percentages and mean. The results revealed that majority of the faculty members own ICT gadgets particularly cell phones and laptops which they use in the delivery of instruction. Also, more than half of the faculty members have wireless internet connection at home and spend less than two hours a day using the internet. Majority of them have social media accounts, particularly facebook. Generally, the respondents believed that they are fairly proficient on the use of ICT and expressed the need for training on areas where they have fair or low level of proficiency. Thus, a training program was crafted to answer the needs of the teachers. It is recommended that the school should opt for blended learning to prevent further spread of the virus. The school shall also provide the teachers with training on module preparation and the use of LMS which are the main tools to use in the delivery of distance education to students.

## INTRODUCTION

Majority of schools around the world have closed due to the coronavirus (COVID 19) pandemic which caused a dilemma to the teachers, parents and students regarding the "new reality". The school closures would last indefinitely as countries continue the struggle to cope with the most severe worldwide public health crisis (Fuad,et al, 2018). The pandemic left the schools unprepared giving them no option but to close the school year in an untimely fashion. Teachers, in their desire to continue reaching out to the students despite the difficult situation, proceeded to teach while utilizing other means. However, the present condition continues to worsen causing continuous school closures and banned face-to-face teaching. This is where the college conceptualized to introduce ISCOF CARES (Collaborative Actions in Response to Educational Setback). This is the Iloilo State College of Fisheries' (ISCOF) initiative in providing flexible learning opportunities to thousands of students from the comfort of their homes. Inspired by the countless endeavors taken by other sectors to fight COVID 19, ISCOF aims to address the educational setbacks brought by the outbreak by introducing project ISCOF CARES (Collaborative Actions in Response to Educational Setback).

Because ISCOF cares, the college introduced alternative ways of learning so that the students may continually get access to education even if they are away from school. This is where the idea of flexible learning through distance education becomes useful. This project which aims to provide flexible learning through distance education will hopefully be of help to students as it envisions to leave no one behind. However, unplanned

and rushed move to online learning without training, insufficient bandwidth, and little preparation will result in a poor learning experience that is unfavorable to sustained growth. To adapt to the needs of time, teachers need to equip themselves with technological skills and modern knowledge in order to develop new materials and to use the ICT technology which may greatly help in challenging times like this.

Everyone is a student and his learning is a continuous process. Even a teacher is not an exception to this premise. In fact, brilliant teachers still need constant retooling and retraining of their knowledge and skills to enhance their use of ICT so as to meet the challenging needs of the 21st century learners.

ICT capability refers to the ability of the teachers to use digital technology, communication tools, and/or networks appropriately to solve information problems in order to function in an information society. ICT ownership is the state of having ICT gadgets while connectivity refers to the state of being connected in the internet.

At present time where COVID 19 continues to threaten our lifestyles and everyone is in danger, teachers have to devise their way of teaching in order to continually meet its goals of educating the learners. Where students have the greater chance to be exposed to virus if they have to come to school, teachers have to offer alternative ways of learning. In order for them to do this, they have to be immersed in intensive training. To determine the kind of training the teachers need, an evaluation study has to be conducted first on ICT Ownership, Connectivity and Capability of IS-COF Faculty Members. Hence, this study.

## STATEMENT OF THE PROBLEM

This study aims to determine the ICT ownership, connectivity and capability of ISCOF Faculty Members. The data gathered will serve as input to a training program. Specifically, this study sought to answer the following questions:

1. What information and communications technology the teachers use?
2. What is the respondents accessibility to the internet and use of computer technology in terms of:
   a. Type of internet connection
   b. Time spent in using the internet
   c. Use of social media account
   d. Type of social media platform
3. What is the level of ICT proficiency of the respondents?

4. What training can be introduced to improve the proficiency level of the teachers?

## METHODOLOGY

This study is anchored on the TPACK framework by Mishra and Koehler (2006) which posits that a teacher depends on three domains of knowledge for effective integration of ICT into teaching and learning (IITL). The domains are content knowledge (CK), pedagogical knowledge (PK), and technological knowledge (TK). Mishra and Koehler defined TK as knowledge about standard technologies, such as books, chalkboard, and more advanced technologies such as the internet and digital video and how to operate those technologies.

The schematic diagram in figure 1 shows the inter-relatedness of the study variables. The independent variables were the teachers who will be the source of information and the dependent variables of this study were the use and ownership of technology, accessibility to internet and ICT, and the level of the teachers' ICT proficiency. The result of the study will serve as input to a proposed training plan.
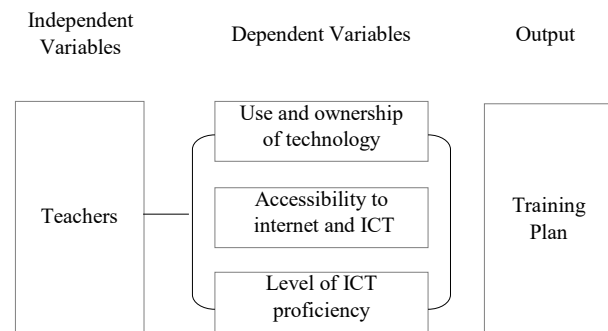


Figure 1. Schematic Diagram of the Study

### Research Design

The study employed the descriptive–survey research design. The survey method obtains data to determine specific characteristics of a group (David, 2005).

### Locale of the Study

The study was conducted at the different campuses of Iloilo State College of Fisheries which includes the Main Campus, Barotac Nuevo, Dingle, Dumangas and San Enrique.

### Respondents of the Study

The respondents of the study were 129 regular faculty members of the Iloilo State College of Fisheries. Among the total respondents, 81 or

63% are female and 48 or 37% are male. Almost half of the respondents belong to the age bracket of 41 and above. Out of the 129 teachers, 58% or an equivalent of 75 are master's degree holder.

## Sample Size

The respondents of the study come from 190 total population of the faculty members of ISCOF. Using the Slovin's formula, out of 190 faculty members, 129 were the sample of the study.

## Sampling Technique

In the selection of the sample respondents, probability sampling was used to give all the teachers the chance of being selected as sample of the study. Particularly, simple random technique using the fishbowl method was utilized. Complete listing of all the teachers at ISCOF was secured. With this, the researchers wrote all the names of the teachers on a piece of paper, rolled and placed in a box. After which, the researchers picked the rolled papers until the desired number of samples was achieved.

## Research Instrument

The duly validated researchers-made questionnaire-checklist was used in gathering the data. The research instrument composed of various parts. Part I focused on the personal background of the respondents; Part II focused on the use and ownership of the technology; Part III gathered data on the access and use of Information and Communications Technology (ICT); and part IV focused on the level of proficiency of the faculty members on the use of ICT.

To ensure the validity of the instruments used in this study, a Panel of Validators who were experts in the field of instruction and research checked tthe instrument according to its content and face value. The validity of the instruments was determined by the degree of which the instrument measures what it intends to measure.

After the validation process, all the corrections, comments and suggestions were incorporated and then, the final draft was created. These instruments were pilot tested to teachers who are not part of the target population in order to find out its applicability, suitability, and reliability.

## Data Analysis Procedure

The data obtained from the study were statistically interpreted through the following:

**Frequency and Percentages**. The profile of the respondents was determined using the frequency count and the proportion was done through percentages. This was also used in determining the respondents' access and use of ICT.

**Mean**. Mean was used to determine the level of ICT proficiency of the respondents. Data were interpreted using the following description:

**Level of Computer Literacy**

| Scale | Interpretation |
|---|---|
| 3.27 - 4.00 | Highly Proficient |
| 2.51 - 3.26 | Proficient |
| 1.75 - 2.50 | Fairly Proficient |
| 1.00 - 1.74 | Not Proficient |

## RESULTS AND DISCUSSION

This study aims to determine the readiness of the faculty members in shifting to flexible mode of learning in this time of pandemic. Readiness will be determined in terms of ICT ownership, connectivity and proficiency level in using the ICT.

## ICT ownership of the Faculty Members

The ICT ownership of the teachers was identified and out of the 129 respondents, 123 or 95% have gadgets and only 6 or 5% have no gadgets used. In the context of an unprecedented global work stoppage, sudden adoption of global transformation led to the widespread use of online learning applications (Quimba et al., 2018), hence, the use of technology is a must. It is refreshing to know that ISCOF faculty members are equipped with technological gadgets which they can use in communicating and teaching their students.

## Types of ICT Gadgets Used

Of the 126 teachers with gadgets, majority of them have smartphones (81%) and laptop (64%). To aid in the smooth transition from the traditional to the proposed flexible mode of instruction, the use of ICT technology is important. It is already predicted that it will be used as a primary mode of imparting education during the pandemic (Dill et al., 2020). The use of mobile phones is the leading way to access the internet. The importance of this device to the Filipinos is to provide not just communication but also the access to information. In fact, a quarter of the population used their mobile phone in 2018 to access the internet, and it is expected to grow and penetrate almost half of the population by 2023 (Sanchez, 2020). Sarder in 2014 also point-

ed out that the advancement in technology relates to education and its accessibility.

## Internet Connectivity at Home

When asked about the internet connectivity, the result revealed that only 67 % of the faculty members have internet connection at home. It can be gleaned from these results that not all faculty members have stable internet connection which is an essential element in the delivery of quality instruction in times of pandemic. It is expected that faculty members will have to work-from-home, hence internet connectivity in their area is necessary. According to Gilson et..al (2015), working virtually requires a reliable connectivity and as of January 2020, the number of internet users in the Philippines grew to 73 million people, accounting for more than half of the total population. The digital population mostly belong to the age group of 16 years old and above (Sanchez, 2020).

## Type of Internet Connection

Those with internet have wireless connections at home. The rest without connections get the connection in the office or either in their friends or relatives' homes or in the internet cafe. It is not surprising to know that not all faculty members have internet connection especially in a rural setting where most of the faculty members are situated. Each campus have already subscribed to an internet provider, however, due to its location, the internet bandwidth can only range from 3- 30 mbps in four campuses. Only one campus can reach as high as 500 mbps due to its advanced subscriptions. According to Akamai State of the Internet Report (2017), the average speed of internet in the Philippines, is at 8.5 mbps and peak connection speeds just reach a speed of 105.1 mbps.

## Time Spent Using the Internet

The amount of time spent using the internet was also determined to see whether the faculty members are adept connecting and browsing the web. Out of the 129 respondents, 43 or 33 % use the internet for less than 2 hours in a day. These data were gathered before the implementation of flexible learning and is expected to escalate once the teachers will have to immerse themselves in preparing the module and when the official semester will begin. Majority of the teachers use the net to check on the emails, see their FB account, chat in the messenger, browse the web for info and updates and watch shows in the YouTube. Chudoba et al. in 2015 stated that " one out of 6 minutes spent online is spent on a social networking sites, and one half of the total internet audience visits a networking site in any given day".

## Social Media and E-mail Accounts of the Faculty Members

When asked whether they have social media and email accounts which they can possibly use to reach out to their students, 123 or 95% have social media accounts and majority use FB or Facebook. In terms of the email accounts, young faculty members were into google while the old ones still use their yahoo accounts. The use of social media and email platforms is essential in this time of pandemic because it will not only be used to be aware of the latest update but also as a means of reaching out to the students who at the same time are also using the said platforms. In a study conducted by Farooq et al. in 2008, they found out that social networking and online communication provided a means for virtual collaboration.

The respondents also expressed their choice to use the blended form of teaching in the time of pandemic as evident in their responses which is 80 or 62%. In these challenging times, teachers have to re-think of an intervention to deliver their lessons rather than face to face encounters. The school plays a vital role in this journey since they are the ones who provide training and workshops for the teachers to be equipped with the skills and knowledge in distance learning education (Darling-Hammond et al., 2019). Distance learning education could build access for learners in college education. However, distance learning education might be hard to execute in the laboratory classes, yet they can boost technology utilization (Mahlangu, 2018). Adopting remote (Dixon & Kirmes, 2020) and flexible learning (Huang, Liu, Tlili, Yang & Wang, 2020) are the best options in this time of pandemic.

## Level of Proficiency on the Use of ICT

Generally, the faculty members are fairly proficient on the use of ICT as reflected in the grand mean of 2.33. The result of the study further revealed that the teachers were proficient in the use of documents, workbooks, presentations, use of email engines, sharing, and downloading of digital materials. It is not surprising for them to know the basic tasks since these are commonly used by the teachers in preparing for the learning materials and reports. The result also revealed that the teachers are not proficient in the use of plagiarism checker which is an equally important task espe-

cially in the time where teachers will have to prepare their learning materials.  The rest of the items were rated fairly proficient which means that they are not that confident in creating visuals/graphics, audio files, video files, blogs, design web pages, utilize the LMS, use simulation software, maintain the database, design/use mobile apps, and host/join virtual meetings. In the asynchronous form, where students and teachers are separated by both space and time, online tools such as Google classrooms and Moodle can help teachers to provide virtual classes to students (Ng, 2007). According to Arling et al. (2017) many institutions of higher education offer online classes and teachers are expected to be ready before its implementation.

In a study conducted by Martin, Budhrani & Wang (2019) from 205 online faculty of higher institutions in the United States, it was found out that in terms of readiness, attitude, and ability to teach online in terms of course design, course communication, time management and technical aspects, most of the responses were rated high.

The data are presented in Table 1.

Table 1. Level of Proficiency of Faculty Members on the Use of ICT

| Statements | Mean | Interpretation |
|---|---|---|
| Create documents | 2.99 | Proficient |
| Create workbooks | 2.67 | Proficient |
| Create presentations | 2.84 | Proficient |
| Maintain database | 2.49 | Proficient |
| Create visuals/graphics | 2.31 | Fairly proficient |
| Create audio files | 2.29 | Fairly proficient |
| Create video files | 2.19 | Fairly proficient |
| Use simulation software | 1.99 | Fairly proficient |
| Use email engines | 2.86 | Proficient |
| Design web pages | 1.79 | Fairly proficient |
| Utilize LMS | 2.15 | Fairly proficient |
| Create blogs | 1.90 | Fairly proficient |
| Share digital content | 2.51 | Proficient |
| Download free digital materials | 2.60 | Proficient |
| Use plagiarism detection | 1.80 | Not proficient |
| Design/use mobile apps | 2.14 | Fairly proficient |
| Host/join virtual meetings | 2.15 | Fairly proficient |
|  |  |  |
| Grand Mean | 2.33 | Fairly Proficient |

**Training Plan in Preparation for Flexible Teaching and Learning**

The main purpose of conducting this study is to come up with a training plan in order to prepare the teachers in the implementation of the flexible instruction. Rosen, Furst and Blackburn (2006) believe that effective training programs are essential especially for virtual settings, as the skills required to perform in such an environment differ vastly. Kim and Bonk (2006) suggested that critical components of successful online faculty are training and support. Shattuck et. al (2011) also believed that remote online faculty need training to be successful. It is best to equip the teachers with the knowledge and skills on the use of the different modalities of the new normal way of teaching so that they may be able to deliver quality instruction.

The training will start off by introducing the teachers to flexible learning.  Through this, they may be able to have a deeper understanding of how flexible learning works, its purpose, and benefits.  The next step is to help the teachers redesign the learning experience of the students to suit to the needs of time.  The training will focus on revisiting the curriculum and restructuring the course plan.  Design thinking as a strategy will also be introduced  by training the teachers to understand the importance of empathy in designing solutions, conceptualizing an idea by defining its features, creating a sketch of how it will look like and creating an explanation of that idea.

In this time of pandemic, the use of modular instruction is one of the best options to keep the students learn while being safe in the comfort of their homes. This particular training on module design aims to enhance the knowledge of the teachers on instructional design concepts and the principles of module design and development. The training will also expose them to the steps involved in the instructional design process and strategies.  Ultimately, the training will help them develop modules using the print and digital format.

Below is the training plan presented in matrix form.

**TRAINING PLAN**

| Program Topic | Objectives | Methodologies/ Activities | Assessment | Time |
|---|---|---|---|---|
| Understanding Flex Learning | Identify the requisites of implementing a flex learning platform<br>Design strategies to address the challenges of going flex<br>Appreciate the importance of shifting online in times of pandemic | Online discussion<br><br>Workshop | - Output presentation | 4 hours |
| Redesigning the Learning Experiences of the Students:<br><br>Curricular Modifications and Course Re- | Redesign the learning experience of the students<br>Revisit the curriculum<br>Restructure the course plan | Online discussion<br><br>Workshop | Course Outline | 8 hours |

| | | | | |
|---|---|---|---|---|
| Design Thinking for an Innovative Class | Identify the steps in design thinking methodologies<br>Understand the importance of empathy in designing solutions<br>Conceptualize an idea by defining its features, creating a sketch of how it will look like and creating an explanation of that idea<br>Value the appropriateness of design thinking in creating flex learning content | Online discussion<br><br>Workshop | - Output presentation | 4 hours |
| Designing Module for Meaningful Learning:<br><br>Coping With the New Normal | 1. Understand the instructional design concepts and the principles of module design and development;<br><br>2. Learn the steps involved in the instructional design process and strategies;<br><br>3. Learn effective instructional and learning tools that heightens participant learning<br><br>4. Design modules based on purposeful and measurable goals using the IS-COF design and format.<br><br>5. Develop modules using the print and digital format | Online discussion<br><br>Workshop | - Output presentation | 16 hours |
| Utilization of Flex Learning Platforms (Virtual Classroom) / Learning Management System (LMS) | Assess the different learning platforms available online<br>Create accounts in a virtual classroom<br>Navigate menus, tools, and pages and explore features and functionalities of a virtual classroom<br>Create virtual class, add students, create posts, upload course content, create classwork and design assessment tools<br>Use collaboration tools<br>Utilize educational mobile applications<br>Maintain a virtual classroom | Online discussion and demonstration<br>Hands-on activities | Output presentation<br>Submission of URLs of virtual classrooms created | 16 hours |
| Development of Flex Learning Content | Identify the tools in creating flex learning content<br>Apply design thinking and ADDIE methodologies in creating course content<br>Create course content in the form of e-books, interactive and linear videos, podcasts, blog posts, visuals, slide deck, simulation, mobile applications<br>Upload developed course content to virtual classroom<br>Appreciate the whole new skill set developed while creating course contents using different tools | Online discussion and demonstration<br>Hands-on activities | Output presentation<br>Submission of URLs/ screen grabs of virtual classrooms with uploaded course contents | 24 hours |

## CONCLUSIONS

The following conclusions are hereby advanced:

1. Majority of the faculty members own ICT gadgets particularly cell phones and laptops which they can use in the delivery of instruction in this new normal way of education.
2. More than half of the faculty members have wireless internet connection at home and spend less than two hours a day using the internet. Majority of them have social media and email accounts, particularly the Facebook and Google mail.
3. Generally, the respondents believed that they are fairly proficient on the use of ICT and expressed the need for a training on areas where they have fair or low level of proficiency.
4. Using the result of the study, a training program was crafted to answer the needs of the teachers.

## RECOMMENDATIONS

Based on the findings and conclusions of the study, the following are hereby recommended:

1. Although some teachers already have the gadgets needed for flexible learning, it is still recommended that if funds warrant, they will be provided with laptop with high specifications to be used as an essential means of preparing the learning materials and in the delivery of instruction, especially since there will be no face-to-face instruction in the time of pandemic.
2. Strengthen the internet connection in schools where teachers can have an access to while they are preparing for their modules or conducting virtual classes. It is also recommended that teachers will be provided with an internet connectivity allowance to help augment their expenses in using the internet.
3. The school should opt for a blended learning for the coming school year to prevent the widespread of virus and so as not to compromise the health and safety of both teachers and students.
4. Since the teachers seem not totally prepared in terms of their proficiency on module preparation and the use of learning management system, the institution shall provide them with training on these areas in order to prepare

them on the delivery of distance education to students.

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# HOUSEHOLD-BASED PROFILING OF NATIVE PIG RAISERS IN MARINDUQUE, PHILIPPINES

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## ABSTRACT

**This study determines the profile of native pig raisers and their practices in native pig production to provide baseline data for future researches and extension activities. The native pig production is the most common source of livelihood in Marinduque, Philippines. Profiling of native pig raisers in Marinduque, specifically those who reside in the barangays that are located within the national road, was conducted from July 2017 to April 2018. Results reveal that the age bracket of pig raisers mostly is between 40 to 60 years old (50.08%) with a 10-year pig keeping experience. The housewives are usually the ones who attend to the pigs (59.45%) and prefer to raise the hybrid pigs (55.9%), a product of native pig and other hybrid pig. It is further found that most (80.37%) of the pig raisers have no involvement yet in any trainings related to pig production, hence most of them are unaware of the importance of record keeping. Each household has an average of 3.04 heads of native pigs. The population of native pig was observed highest in Buenavista (31.14%) while lowest in Mogpog (2.2%). Different production management practices and purpose of raising were also observed. The majority (80.22%) of the respondents prefer to raise gilts and sows. The purpose of raisers is to engage in weanling production or keeping of sow as source of weaned pigs being raise to market weight before being sold. The natural mating is widely used in the propagation or reproduction process.**

*Keywords: Breeding sow, household labor, natural mating, preference, record keeping*

## INTRODUCTION

In the Philippines, swine is one of the major contributors in livestock industry and in the whole agriculture sector (Manipol et al. 2014). Backyard swine raising still predominates and is considered an important form of livestock production specifically in rural areas. It is usually managed using collaborative undertaking among household members and fed on range of readily available feedstuffs (Frankow-Lindberg et al. 2011). Backyard farming operations are found all over the country. The average rural Filipino household usually raises a small number of pigs to augment their needs for cash or food and for planned and emergency expenses. Aside from being a source of income, there are other reasons why households keep pigs. Pig raising provides job opportunity or economic role for certain member/s of the household particularly women, children and the aged. It may be also for the utilization of kitchen leftovers, vegetable trimmings and by-products of farm product processing (Perey et al., 2013). Pig is considered as the richest source of animal protein at a low cost for the people who consume pork [Hossain et al., 2011]. Native animals generally produce high value protein food products and provide additional income for rural farm families (Baguio, 2010). It has the ability to survive and reproduce under natural environment and even with minimal human intervention (Baguio, 2017). Native pig production specifically is also a common source of livelihood in Marinduque, an island and agricultural province that primarily growing crops like rice, coconut, fishing and raising livestock are some of the vital parts of its economy. In this context, this study was conducted to document the current profile and practices of native pig raisers and the status of native pig production particularly along the circumferential roads of Marinduque, Philippines.

## General Objectives

The main purpose of the study is to document the current profile and practices of native pig raisers in Marinduque, Philippines.

## Specific Objectives

Specifically, the study aimed to determine the following:

1. The pig raisers' age variation and number of years' experience
2. Distribution of family labor
3. The breed preference of pig raisers
4. Native pig raisers' attendance to trainings and record keeping
5. Number of current pig holdings
6. Population distribution of native pigs in the province
7. Breeding management practices of native pig raisers

## Review of Literature

Native animals are among the dominant resources in smallholder farms in the rural Philippine (Synan, 2010) and one of the common native animals raised in the said country is the native pig (Synan, 2017). Backyard swine raiser continues to be an important form of livestock production in many low-income countries. For example, in the Philippines, over 80 percent of all pigs are kept in small scale herd. Typically, the backyard raisers are comprised of a small number of native or exotic cross pigs that are kept loose, tethered or confined in pens constructed with local materials. They are managed using household labor and fed by a range of readily available feedstuffs (Armenia, et al., 2016).

There are several countries who documented pig raising management and practices such as Western Kenya and Oyo, State Nigeria. In Western Kenya, majority of their farmers were aged 30-50 years (44%), and were mostly women (69%). Years of pig keeping experience was higher in Kakamega (11.4±8.7) than it was in Busia (6.3±5.6) (P<0.05). Pork (31%) and beef (51%) were the most preferred meat types in the villages. Families owned an average of 0.94±0.81 hectares of land. The mean number of pigs owned per farm was 5.0 (±3.4), 1.8 (±1.2) and 1.5 (±0.9) for the pre-weaned, growing and adult pig categories, respectively. Constraints faced by the farmers included feeding (65%), diseases (46%), fewer breeding boars (60 %), poor profits (61%) and conflicts with neighbours (53%). Parasite control was poor. The majority of farmers (73%) had no pig house. These farmers either lacked skills to build the houses (11%; 23/209) or had no money to purchase construction materials (45%; 93/209). Tethering of pigs was frequent (>50%) during the planting (91%; 263 / 290), growing (90%; 263 / 290) and crop harvesting seasons (78%; 227 / 290). (Arimi, et al., 2011). A similar study was also conducted in Oyo State Nigeria, the result shows that pig farmer's socio-economic characteristics determined the type of feeding pattern used for the animals. This implies that farmer's socio-economic characteristics such as age, gender, family size and educational status should be considered as important livestock production variables in the development of improved technologies and policy formulation. Adesehinwa, et al., 2003

## MATERIALS AND METHODS

This study was carried out in six municipalities of Marinduque, Philippines from July 2017 to April 2018. A total of 1,238 respondents from 62 barangays were surveyed based on the barangays which are located in the main national road. Before the collection of data, letter of permission for each barangay captain and as well as the survey forms were prepared in accordance with the objective of the study. Thereafter, the survey forms were validated against field conditions. The respondents were identified through referral of their neighborhood and guide of the barangay officials. Structured questionnaire was used to gather data concerning personal information among respondents and their native pigs. Descriptive statistics was used in the data analysis. Data were encoded, evaluated and analyzed using the Microsoft Excel 2013 after the conduct of fieldwork.

## RESULTS AND DISCUSSION

### Pig Raisers' Age and Years of Pig Raising Experience

The respondents who engaged in pig production mostly belonged to 41 years old to 60 years old age bracket (50.08%). This finding shows that the age of pig raisers in Marinduque were relatively older than that of native pig farmers in Bangladesh, Western Kenya and India with age bracket of 28-50 years of age [Arimi et al. 2011, Frankow-Lindberg et al. 2011, Payeng, 2017]. On the other hand, it was closely related to the age of farmers in Nigeria wherein farmers aged from 51 to 60 years [Adesehinwa et al. 2003].
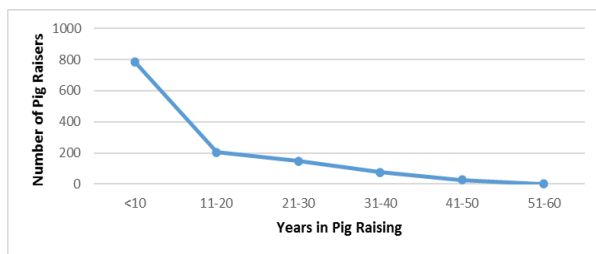
**Figure 2. Respondents' length of experience in raising pigs**

## Household Labor

The study revealed that the wives are the majority of the interviewed pig raisers (59.45%). This supports the findings in other countries like Bangladesh and Western Kenya wherein housewives usually look after the pigs (Arimi et al., 2011 and Frankow-Lindberg et al., 2011). Moreover, most men nominally own pigs but women provide most of the labor associated with production, at least to the market and slaughter stage (Wilson & Swai 2014).

**Table1. Distribution of family labors in pig production**

| PARAMETER | COUNT | PERCENT |
|---|---|---|
| n of respondents | 1238 | 100.00 |
| Wife | 736 | 59.45 |
| Husband | 436 | 35.22 |
| Both husband and wife | 28 | 2.26 |
| Male Children | 26 | 2.10 |
| Female Children | 12 | 0.97 |

## Breed preference

Respondents prefer to raise hybrid pig (55.9%) than native pig (44.10%). This finding shows a change of preference in the choice of native pig breed from 62.16% on year 2005 (Monleon, 2005).

**Table 2. Breed preference of pig raisers in circumferential roads of Marinduque, Philippines**

| PARAMETER | COUNT | PERCENT |
|---|---|---|
| n of respondents | 1238 | 100.00 |
| Native pig is preferred | 546 | 44.10 |
| Non-native is preferred | 692 | 55.9 |

## Training and Record Keeping

Majority (80.37%) of the pig raisers has no participation yet in any pig production trainings but still could raise pigs. With that being said, most of them are unaware of the importance of record keeping. The low support to extension services is primarily the key factor of low participation of farmers to trainings and/or seminars. Result agrees to the study conducted in Bangladesh and Western Kenya where farmers exhibited limited knowledge on pig farming and that was considered as one of the constraints in pig production (Arimi et al., 2011, Armenia et al., 2016, and

Frankow-Lindberg et al., 2011]. Unlike in India, where organized sectors undergo training, which is an evidence that a trained farmer will be practicing better farming than a non-trained farmer and therefore be more inclined towards commercial rearing of pig leading to larger herd size [Payeng et al., 2013].

**Table 3. The basic support services in pig production in circumferential roads of Marinduque, Philippines**

| PARAMETER | COUNT | PERCENT |
|---|---|---|
| n of respondents | 1238 | 100.00 |
| **Attendance to training** | | |
| Yes | 243 | 19.63 |
| No | 995 | 80.37 |
| **Keep Records** | | |
| Yes | 2 | 0.16 |
| No | 1236 | 99.84 |

## Number of native pigs raised per household

Results showed that the average number of native pigs raised by farmers was 3.04. This supports the study conducted in Surigao Del Sur having 3-4 heads of swine being raised throughout the year (Armenia et al., 2016). Further, this result agrees with the findings of the study conducted in Tanzania where household raised an average of $3.04 \pm 5.2$ pigs in the range of 2 to 48 heads (Wilson & Swai, 2014). The result of this study was clearly lower than the average of 5.3 pigs being raised per household in Northern Lao PDR (Frankow-Lindberg et al., 2011) but higher than the number of pigs being raised in Bangladesh where there was only 1 pig per household.

**Table 4. Number of native pigs raised per household**

| PARAMETER | VALUE |
|---|---|
| n of households | 1238 |
| n of household raising native pigs | 546 |
| Minimum, heads | 1.0 |
| Maximum, heads | 22.0 |
| Median, heads | 2.0 |
| Mode, heads | 1.0 |
| Mean, heads | 3.04 |

## Native pig population in six municipalities of Marinduque

The municipality with the greatest number of native pigs was documented in Buenavista (31.14%) while the least population was found in Mogpog (2.2%).

**Figure 3. Native pig population in circumferential roads of six (6) municipalities in Marinduque, Philippines**
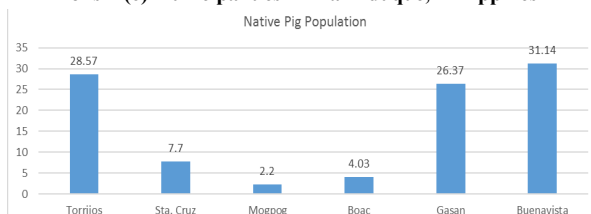
## Breeding management practices of native pig raisers

Most (80.22%) of the farmer-respondents prefer gilt/sow to raise over other types. This is followed by piglet and boar with 18.13% and 7.51%. Respondents differ in purpose of raising pigs. Their choice to engage in enterprise depends on the demand of buyers and consumers. The 66.30% of raisers prefer to keep breeding/sow (Armenia et al., 2016). Breeding sows is source of weaned pigs in the community. The weaned pigs are then raised to market weight before being sold to earn income. Natural mating is widely used among the respondents in multiplying their animals.

**Table 5. Breeding management practices of Native pig raisers in circumferential roads of Marinduque, Philippines**

| Types of Pig raised | Category | Frequency | Percentage |
|---|---|---|---|
|  |  | Number of native pig raisers N=546 |  |
| Types of Pig raised | Piglet | 99 | 18.13 |
|  | Gilt/Sow | 438 | 80.22 |
|  | Boar | 41 | 7.51 |
| Purpose of Raising | Fattening | 151 | 27.66 |
|  | Piglets (weaned) | 107 | 19.59 |
|  | Breeding / Sow | 362 | 66.30 |
| Methods of Breeding | Natural Mating | 546 | 100 |
|  | AI | 0 | 0 |

## CONCLUSION

In Marinduque, Philippines, the backyard swine raising is still being observed. The native pig raising was influenced by several factors including the age of pig raisers that ranges from 41-60 years old having 10 years of pig raising experience. The division of household labor is being practiced and the housewives usually takes care of the pigs. They prefer hybrid pigs and most of them do not have relevant trainings or seminars attended relative to swine raising and hence were not aware on the importance of record keeping. Each household maintain an average of 3.04 heads of pigs. The highest population of native pigs was located in Buenavista (31.14%). Majority (80.22%) of them raise gilts and sows and practice natural mating in propagation. It implies that their profile and practices must be considered first before technologies are introduced and disseminated.

## Recommendation

It is recommended to conduct a regular or annual profiling survey and practices documentation of native pig raisers to update records and findings of such studies.

## Impact to community

The findings of this study will serve as baseline data in organizing extension activities considering the profile and practices of native pig raisers. Moreover, household-based production could be an important source of increased income and improved food security for rural households. Furthermore, improved knowledge coupled to changes in management of native pigs should also be considered.

Transformation of know-how from scientists to farmers should be conducted at a grass roots-level at which the perceptions of a group of nucleus farmers should be elicited before such new applications are taught to the whole community. Finally, the system, once established, has to be monitored to maintain its sustainability.

## ACKNOWLEDGEMENT

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# PREDICTORS OF PREFERENCES IN SENIOR HIGH SCHOOL STRAND OF GRADE 10 STUDENTS

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## ABSTRACT

**This study aims to improve the schools SHS enrolment through analyzing the predictors of strand preference of Grade 10 students. 163 enrolled Grade 10 students participated in this study. The respondents were profiled according to sex, academic performance, and monthly family income. The predictors of the respondents' strand preference were trailed and analyzed. Existing school programs and services preparing the students in effectively choosing their senior high school track aligned with their future choice of career was also checked. Descriptive statistics frequency, percentage, weighted mean was used. When profiled according to sex, 56% of the respondents are females, 90% of them will enroll at San Juan NHS. 70% are academically competitive ranging from satisfactory to outstanding. In terms of monthly family income, 93% of the respondents are on the poor and low-income class. 20%of the respondents chose GAS, 18% chose ICT,17% chose Bread and Pastry,16% chose stem, and 10% chose ABM. In terms of personal factors, top five predictors include: strengths and weaknesses, self-satisfaction, skills, interests, and personality. In terms of environment related factors: financial capacity, family's expectations, teacher's influence, family and relative's career, and parents' influence. Under job opportunity-related the predictors include: available jobs, salary, travelling, job-related privileges, and chance for overseas job. The study recommended : a more positive disciplinary approach to encourage Grade 10 students to enroll in SHS department; SHS offerings be modified based on the suggested SHS strand; offer at least four strands to ensure improvement on enrolment; Guidance services must help learners to effectively choose the best career option for themselves; and annual improvement of the career guidance program to further enhance the guidance service practices;**

*Keywords: career choice, predictors, senior high school, strand preference, SHS strand, uncertainty*

## CONTEXT AND RATIONALE

As education is dynamic, changes in Philippine curriculum was introduced to cope up with the international standards. President Aquino signed Republic Act No. 10533, otherwise known as the "Enhanced Basic Education Act of 2013", into law on May 15, 2013. With the passage of this act, the K to 12 basic education programs was formalized. From the former 10-year basic education curriculum, the K to 12 program mandates 1 year of kindergarten and 12 years of basic education, comprising of 6 years of primary education, 4 years of junior high and 2 years of senior high school.

Choosing the right career is crucial for every individual. If a person fails to choose the suited career for himself, there is a possibility of being a failure in the future. In Senior High School, students have to choose the track/strand that is geared to the career that learners plan to pursue after graduating in high school.

Senior High School Tracks include Academic Track, Technical-Vocational-Livelihood (TVL) Track, Sports Track, and Arts and Design Track.

Academic Track is designed for those who will continue in tertiary level. The specialized subjects offered depends on the strands: General Academic Strand (GAS); Humanities and Social Sciences (HUMMS); Science, Technology, Engineering and Mathematics (STEM); and Accountancy, Business and Management (ABM)

Technical-Vocational-Livelihood (TVL) Track include subjects focused on job-ready skills. It offers practical knowledge and national certificates (NCII, NCIII) to help students land a

job after graduation from SHS. TVL has the following strands. Agri-Fishery Arts; Home Economics; Industrial Arts; and Information and Communications Technology (ICT).

Sports Track aims to equip SHS students with sports-related and physical fitness and safety knowledge. It is best for those who are into athletics, fitness, and recreational industries.

Arts and Design Track hone students' skills in visual design and the performing arts.

San Juan National High School's Senior High School program piloted in 2016 offering Accountancy, Business and Management (ABM) from Academic Track and Home Economics from the Technical Vocational Track with ninety-six (96) enrollees. A slight increase was observed in 2017 with one hundred thirteen (113) enrollees. In 2018, General Academic Strand (GAS) was added to previously offered ABM and TVL, yet the enrollees reached only one hundred twenty (120). In 2019, the enrollees dropped to 92. Forty-three (43) from GAS, twenty-six (26) from ABM, and twenty-three (23) from TVL. The data showed a glaring 40% decrease in enrolment of ABM from forty-three (43) in 2016 to twenty- six (26) in 2019. Moreover, 57% decrease in enrolment was also observed in TVL from fifty-three (53) in 2016 to a big drop of twenty-three (23) in 2019. Nine percent (9%) of decrease was also noticed in GAS, from forty- seven (47) in 2018 to forty-three (43) in 2019.

**Comparative Presentation of Grade 11 Enrolment from 2016-2019**

|  | 2016-2017 | 2017-2018 | 2018-2019 | 2019-2020 |
|---|---|---|---|---|
| **ABM** | 43 | 58 | 40 | 26 |
| **TVL** | 53 | 55 | 35 | 23 |
| **GAS** | Not offered | Not offered | 45 | 43 |
|  | **96** | **113** | **120** | **92** |

There are numerous predictors on Grade 10 student's preference in Senior High School. Parents, friends, and even self-assessment of skills may be included.

Cervera, et al. (2016) revealed that influence of parents, the aptitude of the students, their interests, and factors that are from their surroundings all play a big role in the student's choice for their preferred track in senior high school. Students' choice in SHS strand are affected by their socio-economic status and peers influencing their preference (Moneva & Malbas, 2019). While Kaneez, and Medha (2018) revealed that environment factors, personality factors, and opportunity factors

are the predictors of Grade 10 students' career choice,

The researcher's preliminary investigation found out that the Grade 10 students are not sure yet of the course they will take in college, some wants to try to enroll in private school, others mentioned that Senior High School (SHS) teachers' attitude are the topmost reasons why they are not interested to enroll at San Juan National High School-SHS Dept.

As being uncertain ranked first on the reasons, it is evident that Grade 10 students are still uncertain of their career choice. During high school uncertainty in decision making is unavoidable (Moneva &Malbas., 2019). It happens because learners are still in the process of deciding their future career.

According to Donald Super, there are five life and career development stages, and developing a sense of self and realizing that you change over time is important when planning your career. Grade 10 students' age ranges from 14–16-year-old. They are either on the Growth stage where they are in the period of development of self-concept, attitudes, needs and general world of work; or Exploration, where they are "trying out" through classes, work hobbies. Moreover, they have tentative choice and skill development. The students are seen to be in this stage, facing uncertainty and tentative choice.

The instances presented led to the current research that aims improve the Senior High school offering for School Year 2020-2021 through analyzing the predictors of preferences in senior high school strand of grade 10 students. Its main purpose is to address the decreasing number of enrollees and provide feedback the guidance program needed by Grade 10 students to effectively choose their career.

## INNOVATION, INTERVENTION, AND STRATEGY

The researcher prepared a questionnaire-checklist which composed of Part 1: demographic profile of the respondents; Part 2: Predictors of Strand Preference of Grade 10 Students. The questionnaire was subjected to content validation by research experts, then modified according to experts advise.

The researcher also prepared an interview checklist composed of five follow up questions that will help to come up with a comprehensive and useful research output. Focus group discus-

sion (FGD) was conducted with group of students and with group of teachers for further improvement of the study. Before the actual conduct of the study, the researcher visits the Grade 10 classrooms and inform the students that they will be part of a study on Senior High School Offering for the next school year. The students were also informed that all the data which will be asked from them will be read and analyzed only by the researcher.

The respondents were also asked to listen carefully to the researcher's explanation of every item to ensure correctness of their responses. Lastly, the respondents were also informed that if they do not want to be part of the study, they are free to back out or not to answer any item, but they need to keep quiet for the benefit of those participating on the study. No problems were observed during the conduct of the study.

### ACTION RESEARCH QUESTIONS

1. What is the profile of the respondents in terms of sex, academic performance, and monthly family income?
2. What is the strand preference of Grade 10 students at San Juan National High School?
3. What are the predictors of Grade 10 students' strand preference?
4. What are the existing school programs and services preparing the students in effectively choosing their senior high school strand aligned with their future choice of career?
5. Based on the results of the study, what modifications in SHS programs and enhancement in guidance activities may be proposed?

### ACTION RESEARCH METHODS

**A. Participants and/or Other Sources of Data and Information**

This study utilized descriptive method of research, utilizing combination of interview and questionnaire-checklist to gather the necessary data.

The study focused on grade 10 students' SHS track preference and its predictors. One hundred sixty-there (163) currently enrolled Grade 10 participated in the study.

The researcher also conducted interview and Focus Group Discussion (FGD) to further analyze students' responses and solicit teachers' suggestions on the improvement of the plan.

Documentary analysis was employed to gather information about the topic.

**B. Data Gathering Methods**

This study utilized questionnaire-checklist in gathering data. The questionnaire-checklist is composed of two parts. Part 1 includes the demographic profile and track preference of Grade 10; Part 2 include the predictors of the track preference.

The researcher-made questionnaire was prepared based on the purpose of the study. It was subjected for validation of three research experts from the Division of Antipolo. After the suggestions given were reflected in the questionnaire, it was printed and shown to the validators for final approval. Once the questionnaire was approved, the researcher proceed in final printing of the research tool.

The respondents were tasked to rate each item in the questionnaire-checklist based on how they utilize it in choosing their track preference in Senior High School. A five-point Likert scale was used and interpreted quantitatively to answer the questions in the checklist.

The Likert Scale is shown below.

| Scale | Range | Verbal Interpretation |
|---|---|---|
| 5 | 4.21-5.00 | Strongly Agree |
| 4 | 3.41-4.20 | Agree |
| 3 | 2.61-3.40 | Moderately Agree |
| 2 | 1.81-2.60 | Disagree |
| 1 | 1.00-1.80 | Strongly Disagree |

The researcher made use of descriptive statistics involving frequency, percentage, and weighted mean to analyze the data. Predictors were ranked based on the frequency of responses.

Documentary analysis, focus group discussion (FGD) and interview were employed to further improve the substance of this study.

### DISCUSSION OF RESULTS AND REFLECTION

**Problem 1**: Profile of the respondents according to sex, academic performance, monthly family income, track/strand preference.

**Table 1: Profile of the Respondents According to Sex**

| Sex | Frequency | Percentage |
|---|---|---|
| Male | 72 | 44 |
| Female | 91 | 56 |
| | 163 | |

As observed on the table, there are more females enrolled in Grade 10. Interestingly, during the interview, 90% of the females mentioned they

will enroll at San Juan for the coming school year, while only 70% of the males answered "yes" on the same question. The top 3 answer when asked why they don't want to stay in San Juan are as follows:

1. I want to enroll in STEM, and it is not offered in San Juan.
2. I will enroll if ICT will be offered.
3. Teachers are strict in Senior High School Department. Verbatim:" Ang higpit sa rules and regulations"

**Table 2: Profile of the Respondents According to Academic performance**

| Descriptors | Grading Scale | f (frequency) | % (Percentage) |
|---|---|---|---|
| Outstanding | 90-100 | 25 | 15.34 |
| Very Satisfactory | 85-89 | 54 | 33.13 |
| Satisfactory | 80-84 | 59 | 36.20 |
| Fairly Satisfactory | 75-79 | 25 | 15.34 |
| Did Not Meet expectations | below 75 | 0 | 0.00 |
| | | **163** | **100** |

As shown on the table, with respect to academic performance, only 15% of the respondents are struggling with their studies, 70% are satisfactorily competitive. This entails that the students will be able to compete in more complicated Senior High School subjects.

**Table 3: Profile of the Respondents According to Monthly Family Income**

| Income Cluster | Monthly Income (for a family of 5) | Frequency | Percentage |
|---|---|---|---|
| Rich | 209,620 and above | 0 | 0.00 |
| Upper-income class (but not rich) | Between PHP 125,772 and PHP 209,620 | 0 | 0.00 |
| Upper middle-income class | Between PHP 73,367 and PHP 125,772 | 0 | 0.00 |
| Middle middle-income class | Between PHP 41,924 and PHP 73,367 | 0 | 0.00 |
| Lower middle-income class | Between PHP 20,962 and PHP 41,924 | 11 | 6.75 |
| Low-income class (but not poor) | Between PHP 10,481 and PHP 20,962 | 41 | 25.15 |
| Poor | Less than PHP 10,481 | 111 | 68.10 |
| | | **163** | 100.00 |

Based on the table, majority of the learners are under poor income cluster as revealed by the 68% combined monthly family earnings. This supports the responses of 80% students who mentioned that they will enroll at San Juan NHS- Senior High School Department next school year. The top three reasons why they will enroll at San Juan includes: 1) I considered my family's financial situation. If I'll transfer to private school it will add problems to my family's financial struggle. 2) I prefer General Academic Strand and it is offered in San Juan, so I'll stay.3) It is near my house and I am familiar with the teachers and classmates. Number 1 response strengthen the data that most of the students' family are struggling to make both ends meet for daily expenses.

**Problem 2**: Track preference of Grade 10 students at San Juan National High School.

**Table 4: Track preference of Grade 10 Students**

| Track Preference | Frequency | Percentage | Rank |
|---|---|---|---|
| **Academic** | | | |
| **GAS** | 43 | 26.38 | 1 |
| **ABM** | 16 | 9.82 | 5 |
| **HUMSS** | 10 | 6.13 | |
| **STEM** | 26 | 15.95 | 4 |
| **Technical Vocational and Livelihood** | | | |
| **Home Economics** – Specialization: Bread and Pastry | 28 | 17.18 | 3 |
| **Home Economics-** Specialization: Beauty and Nail Care | 6 | 3.68 | |
| **Information and Communication Technology** (ICT) | 29 | 17.79 | 2 |
| **Agricultural-Fishery Arts** | 3 | 1.84 | |
| **Industrial Arts Strand** | 2 | 1.23 | |
| | | | |
| **Sports** | 0 | 0.00 | |
| **Arts and Design** | 0 | 0.00 | |
| | 163 | 100.00 | |

The table shows that 26% of the respondents choose the General Academic Strand (GAS), when ranked it is the number 1 choice of Grade 10 students. GAS is offered with varied elective subjects coming from other Academic Strands such as ABM, STEM, and HUMSS. It is designed for those who are undecided in their career goals. As it is the leading on the survey, it reveals that the Grade 10 students are not yet sure of what College course they will be taking after senior high. This calls for support from Guidance Counselor, teachers, and advisers. These learners who are still undecided should be taught how they can finalize a plan or career choice.

Information and Communication Technology (ICT) is the second leading choice by the respondents; therefore, it is recommended to modify the course offering and include ICT starting School Year 2020-2021.

Home Economics with Specialization in Bread and Pastry is the third in rank. There is no question with this strand as it has been offered since 2016. There are two master teachers specialized in this strand, so the school can accommodate even two sections for this strand.

Science, Technology, Engineering and Mathematics (STEM) Strand is the fourth in rank and comprise 16% of the respondents. San Juan is not offering this strand due to not enough facilities and teachers specialized to handle STEM subjects. As students will stay at San Juan if this strand will be offered, it is recommended to have another section in GAS where electives are come from STEM strand. In this manner, there will be a better chance of increasing the enrollees for SHS.

ABM rank fifth. It is quite saddening that very few, only 10%, wants to enroll in this strand. The data comes directly from the clientele; therefore, it is an indication that there is a need to either not offer this strand or open another section in GAS with electives in ABM. This is to at least keep the strand that was originally offered since 2016.

**Problem 3**: Predictors of Grade 10 Students' Track Preference.

As the grade 10 students are already decided which track/strand to choose in the coming School Year, let us analyze what are the predictors of their chosen track. The predictors are grouped into three: Personal Factors, Environment-related Factors, and Job Opportunity-related Factors.

**Table 5: Predictors of Grade 10 Students' Strand Preference in terms of Personal Factors**

| | PERSONAL FACTORS | | | |
|---|---|---|---|---|
| | I… | Rank | Weighted Mean | Verbal Interpretation |
| 1 | Decided my strand preference and career choice based on my personality. | 5 | 4.17 | Agree |
| 2 | Considered my grades in choosing my senior high school strand. | 8 | 3.61 | Agree |
| 3 | Considered my skills in choosing my senior high school strand. | 3 | 4.24 | Strongly Agree |
| 4 | Chose my senior high school strand. Based on my interest. | 4 | 4.22 | Strongly Agree |
| 5 | Considered self-satisfaction in deciding my senior high school strand. | 2 | 4.47 | Strongly Agree |
| 6 | Considered my favorite subjects in choosing my senior high school strand. | 7 | 3.63 | Agree |
| 7 | Considered my academic ability in deciding my senior high school strand. | 6 | 3.71 | Agree |
| 8 | Considered my test scores in deciding my senior high school strand. | 9 | 2.84 | Moderately Agree |
| 9 | Considered my strengths and weaknesses before finalizing my senior high schoolstrand. | 1 | 4.48 | Strongly Agree |
| 10 | Am limited to choose a senior high schoolstrand based on what is available near my residency. | 10 | 2.56 | Disagree |
| | **Composite Mean** | | **3.79** | **Agree** |

*Legend: 4.21-5.00, Strongly Agree; 3.41-4.20, Agree; 2.61-3.40, Moderately Agree; 1.81-2.60, Disagree;1.00-1.80, Strongly Disagree*

As observed on the table, under personal factors, "I considered my strengths and weaknesses ranked first, with a mean of 4.48, interpreted as Strongly Agree. This revealed that the respondents are critically analyzing themselves before decision making. This is a very positive note that the respondents are aware on how to decide appropriately. This is supported by "Considered self-satisfaction" which ranked second on the predictors. This entails that the respondents consider their happiness on the future career they plan. Happiness I important in life, may it be in studying or in career. Happiness was found to be a critical precursor to success. When workers are happy, they enjoy their job, don't feel tired and weary and do not quit easily (Lyubomirsky, et.al., 2018). In the same way, when you are happy with your decision, and the course is your choice, you will work hard to finish it no matter how many hurdles you face.

"I considered my skill" ranked third. Followed by "I chose my senior high school strand. based on my interest', ranked fourth; and "I decided my strand preference and career choice based on my personality" on the fifth rank. Skills, interest, and personality are the important to consider in choosing a course or a career leading to success. The study of Alkhelil (2016) found out that if a person makes career choices based personal interests and abilities, there is a higher tendency of job satisfaction. When a person is satisfied, he can unleash his full potential.

"I am limited to choose a senior high school strand based on what is available near my residency" is last on the rank, with a mean of 2.56, interpreted as Disagree. The respondents as a whole believed that they choose the school not because it is the nearest school and they do not have a choice, but rather they consider the most vital in career choice which is the personality, skills, interests, happiness, and the strengths and weaknesses.

In total, personal factors was computed with a mean of 3.79, interpreted as Agree, which shows that personal factors are predictors of strand preference of Grade 10 students.

**Table 5: Predictors of Grade 10 Students' Strand Preference in terms of Personal Factors**

| | ENVIRONMENT-RELATED | Rank | Mean | Verbal |
|---|---|---|---|---|
| 1 | My parents influence my senior high school strand preference. | 5 | 3.93 | Agree |
| 2 | My teachers' expertise and characteristics influence my senior high school strand preference. | 3 | 4.07 | Agree |
| 3 | The Guidance counselors influence | 6 | 3.91 | Agree |

| | | | | |
|---|---|---|---|---|
| 4 | My friends and peers affect my senior high school strand preference. | 9 | 2.39 | Disagree |
| 5 | My family and relatives' career influenced me in choosing senior high school strand | 4 | 4.05 | Agree |
| 6 | My family's financial capacity to support my studies affects my senior high school strand preference | 1 | 4.25 | Strongly Agree |
| 7 | My family's expectations influence my senior high school  strand preference | 2 | 4.13 | Agree |
| 8 | The school environment influences my senior highschool strand preference | 7 | 3.77 | Agree |
| 9 | The school programs and policies influence my senior high school strand preference | 8 | 3.39 | Moderately Agree |
| 10 | The senior high school strand is the only available in the school  near my home. | 10 | 2.26 | Disagree |
| | **Composite Mean** | | **3.61** | **Agree** |

*Legend: 4.21-5.00, Strongly Agree; 3.41-4.20, Agree; 2.61-3.40, Moderately Agree; 1.81-2.60, Disagree; 1.00-1.80, Strongly Disagree*

In terms of environment-related factors, a mean of 4.25, interpreted as "Strongly Agree" was computed for "My family's financial capacity to support my studies affects my senior high school strand preference". Among the predictors, this is the only one which reached the scale of 5. This revealed how the respondents think very well the welfare of the family in deciding their track preference. It seems that they are very much aware that in terms of monthly family income, their family belongs to either low middle, low income or poor cluster.

The respondents also revealed that family expectations, teacher's expertise, family and relatives' career, and parents are predictors when choosing a strand in Senior High School. It was shown on their responses on the following: "My family's expectations" has a mean of 4.13; "My teachers' expertise and characteristics" achieved a mean of 4.07; "My family and relatives' career"" has 4.05; and "My parents" has 3.93, all interpreted as Agree. This notion is supported by the study of Kazi and Akhlaq (2017) which found out that parents among the factors influencing career choice of the students, parents' influence comes first. Moreover, influence from peers, gender, print media, financial reasons, interest and others are the next influencing factors. However, in this study, the respondents disagreed that friends and peers is a predictor of their SHS track as revealed the mean of 2.39 on "My friends and peers". They also disagreed that "The senior high school strand is the only available in the school near my home" as shown by the 2.26 mean. It shows that they had a chance to choose, and they choose wisely based on the available alternatives.

The environment-related factors are computed with a mean of 3.61, interpreted as Agree, which means environment, overall, is a predictor of strand preference of the respondents.

**Table 7: Predictors of Grade 10 Students' Strand Preference in terms of Job opportunity-related Factors**

| | JOB OPPORTUNITY-RELATED FACTORS | Rank | Mean | Description |
|---|---|---|---|---|
| 1 | I considered the range of available jobs before choosing my senior high school track. | 1 | 4.01 | Agree |
| 2 | I considered the possible employers before deciding on my senior high school track. | 6 | 3.38 | Moderately Agree |
| 3 | Job-related opportunities and privileges affect my senior high school track preference. | 4 | 3.69 | Agree |
| 4 | I considered job contacts before finalizing my senior high school track. | 7 | 3.37 | Moderately Agree |
| 5 | The opportunity of managing family business affects my senior high school track preference | 9 | 3.06 | Moderately Agree |
| 6 | I give important considerations on the possibility of being promoted to a higher position inchoosing my senior high school track. | 8 | 3.22 | Moderately Agree |
| 7 | I considered rewarding salary before finalizing my senior high school track. | 2 | 3.89 | Agree |
| 8 | I considered job opportunities near my home before deciding on my senior high school track. | 10 | 2.56 | Disagree |
| 9 | I considered the possibility of being employedabroad before finalizing my senior high school track. | 5 | 3.64 | Agree |
| 10 | I considered jobs associated with travelling onother places before choosing my senior high school track. | 3 | 3.76 | Agree |
| | Composite Mean | | 3.46 | Agree |

*Legend: 4.21-5.00, Strongly Agree; 3.41-4.20, Agree;2.61-3.40, Moderately Agree; 1.81-2.60, Disagree; 1.00-1.80, Strongly Disagree*

In terms of job opportunity-related factors, nearness of a future job to the respondents' home was not considered by the respondents while planning for SHS strand leading to a future career.

The range of available jobs, salary, privileges and opportunities, travelling, and courses leading to overseas jobs were found predictors of Strand Preference.

**Table 8: Predictors of Grade 10 Students' Strand Preference**

| | Rank | Mean | Verbal Interpretation |
|---|---|---|---|
| PERSONAL FACTORS | 1 | 3.79 | Agree |
| ENVIRONMENT-RELATED FACTORS | 2 | 3.61 | Agree |
| JOB OPPORTUNITY-RELATED FACTORS | 3 | 3.46 | Agree |

When grouped according to predictors, the respondents' response revealed that personal factors are the first in rank, followed by environment

-related factors, and job opportunity-related factors is the least with a mean of 3.79, 3.61, and 3.46 respectively. This gives an impression in career planning, students consider first their self-satisfaction, skills and abilities than the significant other's advices such as parents, relatives, teachers, guidance counselors and friend.

This view is in contrast with the result of the study conducted by Fizer (2013) where family is the most important factor influencing their choice of major or course, followed by their own choice as revealed "a career that is personally rewarding" and "experience". The study of Eremie & Okwulehie (2018) opined that students should be aware of environmental factors that could interfere with their career choices; parents and teachers should join hand in hand prepare students for career awareness earlier; and parents should work closely monitor their child's in career decision making process but allow them to choose from their own interest.

**Problem 4.** Existing school programs and services preparing the students in effectively choosing their senior high school.

During the interview, the respondents collectively agreed that there are guidance programs conducted in school by the teachers, advisers and guidance counselor to help them choose the appropriate Senior High School track, however some students still claim uncertainty in choosing their future career. Majority of the students agreed that it is their own decision that was followed in choosing SHS track to enroll, yet 20% mentioned they also consider their parents and teachers' advice. This proves that Grade 10 teachers may help guide the students on their strand preference decision, which in turn improve the enrollment in Senior High School Department.

**Problem 5.** Proposed Modifications in Senior High School programs and enhancement in guidance activities.

Based on the result of the study the following are recommended: more activities involving Grade 10 and SHS students which will allow familiarity on SHS department's strand offerings; both the Junior High and Senior High teachers should join hand in hand to promote the SHS offering at San Juan in their classes and during school gatherings; a more positive disciplinary approach should be employed to encourage Grade 10 students to enroll in in San Juan; SHS offerings be modified based on the result of this study.

## Action Plan

**Suggested Track/Strand Offering for School Year 2020-2021**

| | Expected Enrollees | Specialized Teachers |
|---|---|---|
| **Academic Track** | | |
| Grade 11 GAS-STEM | 30-40 | Mrs. Jeneth D. Sobrevega |
| Grade 11GAS-ICT | 30-40 | Mr. Adrian Sernio |
| Grade 11GAS-ABM | 30-40 | Mr. Alex S. Sager |
| **Technical-Vocational-Livelihood** | | |
| Home Economics | 30-40 | Mrs. Cathylene L. Sernio |

**Suggested Activities of SHS and Grade 10 Students**

| Activities | Suggested Months |
|---|---|
| Food fest | July |
| Balagtasan Pagsulat ng Textula | August |
| Impromptu Speech Declamation Contest | September |
| SHS Festival | October |
| Research Festival | February 2021 |

## CONCLUSIONS AND RECOMMENDATIONS

1. Out of 163 Grade 10 students, 44% are male while 56% are female. 70% of male and 90% of female students will enroll at San Juan NHS. In terms of academic performance, 70% are academically competitive, 15% are outstanding, and the remaining are struggling. With regards to monthly family income, 68% of the respondents belong to poor category, 25% are low income, while 7% belong to the lower middle income.
2. The grade 10 students strand preference are: General Academic Strand (GAS); 2) Information and Communication Technology (ICT); 3) TVL; and 4) STEM.
3. The predictors of grade 10 students' SHS strand preference include 1) Personal factors, 2) Environment-related factors; and 3) Job-opportunity related factors.
4. There are guidance programs conducted in school by the teachers, advisers and guidance counselor to help them choose the appropriate Senior High School track however some students still claim uncertainty in choosing their future career.

Based on the conclusions, the following recommendations were made:
1. A more positive disciplinary approach should be employed to encourage Grade 10 students to enroll in in San Juan. SHS offerings be modified based on the suggested SHS strand.

2. Offer at least four strands to ensure improvement on enrolment.
3. Guidance services must help learners to effectively choose the best career option for themselves. Parents must also be given more orientation to help their children choose the beast career for them.
4. Improve the career guidance activities because some students are still uncertain on their career path. Prepare ore activities involving Grade 10 and SHS students to familiarize them of the SHS offerings.
5. Further research that will focus on the variables not covered in this study may be conducted to further improve the enrolment rate of the senior high school department.

**Proposed Implementation Plan of Enhanced Vocation Guidance**

**Objective:**

- To guide the students on the four SHS track and be informed of the track that suits their interest, skills, work values, and personality and the college course and job opportunities associated to each track.

| Program | Activities | Time Frame | Person's Involved | Resources/Materials | Challenges |
|---|---|---|---|---|---|
| **Identify Your Career Profile** <br><br> guide learners to acknowledge their talents, skills, interests, and personality <br><br> *Module 1 of DepEd's CGP* | Reflect: What am I goodat? <br><br> What do people tellme I'm good at? <br><br> Administration of Personality Test <br> Myers-Briggs TypeIndicator (MBTI) <br> 16PF Skills Inventory <br><br> Work Values Inventory | June-July 2020 | Guidance counselor, Teachers, Advisers, Principal, Grade 10 | Copy of personality tests,Skills Inventory Test, <br> Work Values Inventory <br> Bond paper for printing <br> Colored paperand pen for activities | Time management and work prioritization <br><br> Participationand attendance of students |
| **Exploring Career Options** <br> Identify one's specific short, medium, and long-term goals. | Exploring Career Development Process <br><br> SMART goals <br><br> Preparation of short-term, medium term, and long-term goals | August-September 2020 | Guidance counselor, Teachers, Advisers, Principal, Grade 10 | Learners' portfolio <br><br> Short, medium, andlong-term goals template | On time submission ofactivity output; |
| **Senior High School Track Orientation** <br><br> *understand characteristics of the four Senior High School tracks specific strands <br><br> *Module 2 of DepEd's CGP* | Discussion of SHS tracks: <br><br> Academic; <br> Technical-Vocational-Livelihood; <br><br> Sports; and <br> Arts & Design. <br><br> Aligned College Course aligned to each strand | September October 2020 | Guidance counselor, Teachers, Advisers, Principal, Grade 10 | Leaflets on SHS tracks | materials for printingthe leafletsand brochures |
| **Orientation on Curriculum Exits** <br><br> *Module 3 of DepEd's CGP* | Four Curriculum Exits <br> Kolehiyo <br> Trabaho <br> Negosyo <br> Middle Level Management Skill | | | Brochure on curriculum exits | |

## ACKNOWLEDGMENT

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# ASSESSMENT OF DAVAO ORIENTAL STATE COLLEGE OF SCIENCE AND TECHNOLOGY PROFESSIONAL SCHOOL GRADUATES

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## ABSTRACT

**This study aimed to assess the graduates of Master of Arts in Education major in Educational Management and Master of Arts in Education major in Teaching English, Master of Science Teaching major in General Science and Master of Science Teaching major in Mathematics of Davao Oriental State College of Science and Technology by identifying the extent of use of the skills provided, its relatedness to the task and the adequacy of the skills learned; to determine the respondents' degree of satisfaction in terms of services, learning environment, facilities; and to determine the performance of graduates in their workplace. Fifty-two MAED and MST graduates of DOSCST were the respondents of this study. A complete enumeration is used as basis for the number of respondents. The data were gathered through a questionnaire. Forty-eight of them responded. In the extent of use of the skills provided, knowledge and technical skill had the highest mean rank and human relation ranked last. For the extent or level of skills acquired, research skill was the highest and communication skill was the lowest. Looking at the degree of adequacy of skills learned, the communication skills were rated high while research skills were considered as the least adequate skills learned. On the degree of satisfaction of graduates in terms of services, the registrar had the highest degree of satisfaction while food, library and security services had very low degree of satisfaction. Majority of the indicators of learning environment were rated very high degree of satisfaction, while only interaction with students had rated strong degree of satisfaction. In terms of facilities, science laboratory topped on the several indicators which were rated very high degree of satisfaction. Library was the least on the remaining indicators which was rated as strong degree of satisfaction. In the performance of graduates in their workplace, most of their Individual Performance Commitment and Review Form rating was very satisfactory. The highest rating occurred in the school year 2016-2017, where four of them obtained an outstanding performance and 25 have very satisfactory rating. The researcher recommended that master's graduate must develop and practice more the different skills especially the use of ICT skills, communication skills and human relations skills for the development of ideas and application for the betterment of the learners. In this, DOSCST Graduate School should sustain sufficient facilities and maintain the positive learning environment to support student's learning and holistic development.**

*Keywords: assessment, knowledge and technical skills, communication skills, research skills, problem solving skills*

## INTRODUCTION

Assessment of graduates in Graduate Studies Program is necessary to evaluate the performance of graduates in their workplace and the alignment of the skills learned. It is an integral part of an effective educational program to determine whether graduates are satisfied with the services, facilities and learning environment.

Higher education institutions are producing graduates who are capable of applying technology and knowledge-based information to the nature and demands of their environment (Macalalad, et. al 2016), ready to jump straight into their desired careers (Tucker, 2014) and respond to the ever-changing needs of the contemporary workplace (Andrews, 2011)

Plantilla (2017) expressed in his study that the effectiveness of an educational program offered by an educational institution can be measured through the competencies of its graduates and the knowledge and skills applied in the work environment. This can be determined through the feedback from employers of the graduates' performance in the work situation. Moreover, Mills (2013) pointed out that graduates of a graduate school who applied their knowledge and skills, good attitude and behaviour towards work have a great chance of job promotion for the betterment of professional development.

In assessing the graduate performance of graduate students in the workplace, it is important to identify the strengths of an institution and determine the areas for improvement. Chang and Fisher (2003) postulated that the level of a student's satisfaction in a lesson is a very important component for them to acquire the knowledge or skill. A student can be considered to be satisfied if he feels that the lesson meets his needs and expectations. Uka (2014) added that social and physical factors of an institution's services may greatly influence the degree of attractiveness and the students' overall satisfaction. Considering the fact that all such services may have an impact on the students' attitude toward the institution and their satisfaction, educators maximize the services derived especially from social factors.

Baking (2015) revealed that the graduates are highly employable, and that a great majority of them have jobs aligned with their pre-service preparations. Then, Valdez (2009) added that trainings would be very insightful in assessing the effectiveness of the programs, and in evolving need driven improvements.

The core mission of university continues to be the creation of an open space of higher learning within a life-long perspective to integrate better into the global knowledge society (Ramirez,2014) and it affects the quality of employability of graduates (Aquino, et al 2015). Moreover, Martinez (2001) from Cabanatuan City, revealed that graduate students are employed in jobs that are in line with their course. Then, Meñez (2008) concluded that graduates were promoted after finishing their degree and they strongly agree that subjects in graduate program were very useful in their respective place of works.

The conduct of this research gave emphasis on the importance of assessing graduates to their performance in their workplace. The alignment of skills provided, and the degree of satisfaction in terms of services, learning environment and facilities could strengthen and improve the services of DOSCST that contributed to graduates performance in their workplace especially now that aiming to be a Davao Oriental State University.

## STATEMENT OF THE PROBLEM

This study aimed to assess the graduates in Master of Arts in Educational Management, Master of Arts Teaching in English, Master of Science Teaching major in General Science, and Master of Science major in Mathematics from academic years 2013-2017. Specifically it answers the following problems.
1. To what extent of use of the skills provided, its relatedness to the task and the adequacy of the skills learned?
2. What is the respondents degree of satisfaction in terms of the following:
   2.1 Services
   2.2 Learning Environment
   2.3 Facilities
3. What is the performance of graduates in their workplace?

## METHODOLOGY

### Research Design
This study used the descriptive research to find out the extent of use of the skills, its relatedness to the task and adequacy of the skills learned. Responses regarding the skills provided and acquired are measured using the mean rank with multiple correspondence analysis to define the degree of utilization and degree of adequacy of skill learned. The measure to define the degree of skills used and the degree of the adequacy of skills learned is the interval of 0 and 1 and the numbers in between. Zero is the lowest and one is the highest. The measure of degree of satisfaction is generated using multiple correspondence analysis. This provides correlation coefficient of each response. The performance of the graduates in their workplace was examined using the Individual Performance and Commitment Review ratings.

## Research Respondents

This study utilized a total enumeration as basis of the number of respondents. There were 48 professional school graduates of the Davao Oriental State College of Science and Technology from school year 2013-2014 to 2016-2017 comprising 31 graduates of Master of Arts in Education major in Educational Management, three Master of Arts major in Teaching English, six graduates of Master of Science teaching major in General Science and eight graduates of Master of Science Teaching major in Mathematics. They determined the extent of use of the skills provided, its relatedness to the task and the adequacy of the skills learned. They also determined the degree of satisfaction in terms of services, learning environment, and facilities. Furthermore, they determined the performance of graduates in their workplace. The sampling technique used was complete enumeration.

Table I showed the distribution of respondents from the five programs of Davao Oriental State College of Science and Technology.

**Table 1. Distribution of Respondents**

| Year | No. of MAED – Educational Management | No. of MAED – Teaching English | No. of MST – General Science | No. of MST – General Science |
|------|------|------|------|------|
| 2013 | 0 | 0 | 0 | 1 |
| 2014 | 4 | 0 | 0 | 2 |
| 2015 | 7 | 0 | 1 | 3 |
| 2016 | 8 | 3 | 0 | 0 |
| 2017 | 12 | 0 | 5 | 2 |
| TOTAL | 31 | 3 | 6 | 8 |

## Research Instruments

The questionnaire used in gathering data was adapted from the study of Buenvinida and Yazon of 2017 and the DepEd Order No. 2, s. 2015.

## FINDINGS

### Degree of Skills Provided, Acquired, Used and Adequacy of Skills Learned

Table 2 provides the degree of skills provided, acquired, used and the adequacy of skills learned. The research skills provided and acquired by the graduate students of the Davao Oriental State College of Science and Technology had the highest mean rank of 4.94 and 4.97 respectively but its degree of adequacy of skills learned is low with a value of 0.341. This denotes that graduate stu-

dents seldom used and apply research skills in their workplace despite of a large amount of its provision.

Knowledge and technical skills had the highest degree of skills used with a value of 0.471.This means that it is practiced and observed evidently in their workplace. Further, communication skills had the highest degree of adequacy of skills learned with the value of 0.669. This means that these skills are manifested evidently in their workplace.

**Table 2. Degree of Skills Provided, Acquired, Used and Adequacy of Skills Learned**

| Skills | Mean Rank of Skills Provided | Mean Rank of Skills Acquired | Degree of Skills Used | Degree of Adequacy of Skills Learned |
|------|------|------|------|------|
| Knowledge and Technical Skills | 4.48 | 4.96 | 0.471 | 0.527 |
| Communication Skills | 4.32 | 3.55 | 0.197 | 0.669 |
| Human Relation Skills | 4.39 | 4.15 | 0.135 | 0.593 |
| Leadership Skills | 4.26 | 4.52 | 0.273 | 0.521 |
| Research Skills | 4.94 | 4.97 | 0.272 | 0.341 |
| Problem Solving Skills | 4.41 | 4.48 | 0.305 | 0.548 |
| Information and Communication Technology Skills | 4.02 | 3.99 | 0.147 | 0.571 |

### Degree of Satisfaction in Terms of the Services Offered

Table 3 summarizes the degree of satisfaction in terms of the services offered by the Professional School. The standard criterion of judging the degree of satisfaction was based on Bartz (1981). Bartz (1981) provided criterion that includes r= 0.80 or above (very high), r= 0.60-0.79 (strong), r= 0.40-0.59 (moderate), r= 0.20-0.39 (low), and r= 0.19 or less (very low). It can be gleaned that the Registrar Services had a very high degree of satisfaction with a degree value of 0.788. This means that it provided efficient services according to the needs of the graduate students. Food services and library services had the negative degree of satisfaction. This indicates that food and library services were badly felt by the graduate students as a necessity to the school premise during classes.

**Table 3. Degree of Satisfaction in terms of Services Offered**

| | Services | Degree of Satisfaction |
|------|------|------|
| 1. | Accounting | 0.582 |
| 2. | Cashier | 0.571 |
| 3. | Admissions | 0.547 |
| 4. | Registrar | 0.788 |
| 5. | Faculty Support | 0.545 |

| | | |
|---|---|---|
| 6. | Staff | 0.573 |
| 7. | Academic Advising | 0.556 |
| 8. | Research Mentoring | 0.556 |
| 9. | Food Services | -0.157 |
| 10. | Library Services | -0.082 |
| 11. | Extension/Community Involvement | 0.107 |
| 12. | Extra and co-curricular Activities | 0.563 |
| 13. | Security | 0.029 |

## Degree of Satisfaction in Terms of the Learning Environment

Table 4 showed the degree of satisfaction in terms of the learning environment offered by the DOSCST Professional School. It can be noted that the Creativity in teaching as learning environment had a very high degree of satisfaction with a value of 0.981. The result of the learning environment was very impressive. Majority of the indicators had a very high satisfaction. This means that the Professional School is meeting the needs and demands of its clients by providing quality learning environment.

**Table 4. Degree of Satisfaction in terms of the Learning Environment**

| | Learning Environment | Degree of Satisfaction |
|---|---|---|
| 1. | Knowledge of Content | 0.821 |
| 2. | Interaction with Students | 0.723 |
| 3. | Creativity in Teaching | 0.981 |
| 4. | Delivery Skills | 0.836 |
| 5. | Teaching Methods | 0.839 |
| 6. | Instructional Materials | 0.866 |
| 7. | Respect for Students | 0.905 |

## Degree of Satisfaction in Terms of the Facilities

Table 5 showed the degree of satisfaction in terms of the facilities offered by the DOSCST Professional School. The respondents had a very high degree of satisfaction to science laboratory as one of the facilities with a value of 0.987.

**Table 5. Degree of Satisfaction in terms of the Facilities**

| | Facilities | Degree of Satisfaction |
|---|---|---|
| 1. | Library | 0.699 |
| 2. | Science Laboratory | 0.987 |
| 3. | Computer laboratory | 0.888 |
| 4. | Equipment | 0.911 |
| 5. | Classroom | 0.821 |
| 6. | Clinic | 0.831 |
| 7. | Canteen | 0.834 |
| 8. | Recreational Facilities | 0.699 |
| 9. | Audio-visual Room | 0.733 |
| 10. | Communication Facilities | 0.863 |
| 11 | Building and Ground Condition | 0.759 |

## Performance of Graduates in their Workplace

Table 6 showed the performance of graduates in their workplace. During the school year 2013-2014, the respondent rated very satisfactory rating in the 4 evaluation years. All of the school year 2013-2014 graduates have also a very satisfactory rating in their 3 evaluation years. In the school year 2014-2015, one respondent has an outstanding performance while the ten had very satisfactory performance. The performance rating is increasing as revealed in the school year 2015-2016 graduates for three of them evaluated with outstanding performance and eight were evaluated with very satisfactory performance.

**Table 6. Performance of Graduates in their Workplace**

| S.Y Graduated | Previous Teaching Position before Graduation | F | Current Teaching Position as of this Study | F | Start of PAST/ IPCRF Rating | O | VS | S | US | P |
|---|---|---|---|---|---|---|---|---|---|---|
| 2012-2103 | T1 | 1 | T3 | 1 | 2013-2014 | 0 | 1 | 0 | 0 | 0 |
| | | | | | 2014-2015 | 0 | 1 | 0 | 0 | 0 |
| | | | | | 2015-2016 | 0 | 1 | 0 | 0 | 0 |
| | | | | | 2016-2017 | 0 | 1 | 0 | 0 | 0 |
| 2013-2014 | T1<br>T2<br>T3 | 3<br>1<br>2 | T3<br>MT1<br>P1 | 4<br>1<br>1 | 2014-2015 | 0 | 6 | 0 | 0 | 0 |
| | | | | | 2015-2016 | 0 | 6 | 0 | 0 | 0 |
| | | | | | 2016-2017 | 0 | 6 | 0 | 0 | 0 |
| 2014-2015 | T1<br>T3<br>PTI<br>P1 | 8<br>1<br>1<br>1 | T1<br>T3<br>MT1<br>P3<br>I1<br>WA | 2<br>5<br>1<br>1<br>1<br>1 | 2015-2016 | 0 | 11 | 0 | 0 | 0 |
| | | | | | 2016-2017 | 1 | 10 | 0 | 0 | 0 |
| | | | | | | | | | | |
| 2015-2016 | T1<br>HT<br>PST<br>OW | 7<br>1<br>1<br>2 | T1<br>T2<br>T3<br>HT<br>P1<br>OW<br>AO | 1<br>1<br>5<br>1<br>1<br>1<br>1 | 2016-2017 | 3 | 8 | 0 | 0 | 0 |

**Legend**:

| | |
|---|---|
| T1 – Teacher I | PTI – Part time Instructor |
| PST – Private School Teacher | T2 – Teacher II |
| P1 – Principal I | OW – Office Worker |
| T3 – Teacher III | HT – Head Teacher |
| MT1 – Master Teacher | P3 – Principal III |
| I1 – Instructor I | AO – Administrative Officer |
| WA – Work Abroad | F – Frequency |

## CONCLUSIONS

Based on the findings, the following conclusions are provided, these are;
1. The research skills provided by the Professional School and acquired by the graduate

students of the Davao Oriental State College of Science and Technology had the highest mean rank.

2. Knowledge and technical skills had the highest degree of skills used.
3. Communication skills had the highest degree of adequacy of skills learned.
4. Registrar Services had a very high degree of satisfaction in terms of the services offered
5. Creativity in teaching had a very high degree of satisfaction in terms of the learning environment.
6. Science laboratory had a very high degree of satisfaction in terms of facilities.
7. The performance of graduates in their workplace is very satisfactory.

## RECOMMENDATIONS

Based on the conclusions of the study, the researchers recommend the following:
1. More engagements to research activities for a better reinforcement and enhancement.
2. Heightened the integration of information and communication technology
3. Food and library services may be fully operated and functional during Saturdays.

## ACKNOWLEDGMENT

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