



ISSN: 2467-4885

# Asian Intellect

FOR ACADEMIC ORGANIZATION AND DEVELOPMENT INC.

VOLUME 17 NO. 2

DECEMBER 2020



# RESEARCH AND EDUCATION JOURNAL



**RESEARCH AND EDUCATION JOURNAL  
VOLUME 17 NO. 1, DECEMBER 2020**

The Asian Intellect Research and Education Journal  
is a refereed journal and is published by the

**Asian Intellect for Academic Organization and Development Inc.**

with

SEC REGISTRATION NO. CN201539886  
and office address at  
BLOCK 63, LOT 20, FIESTA COMMUNITIES,  
SAN RAFAEL, TARLAC CITY

EMAIL: [asianintellectorg@gmail.com](mailto:asianintellectorg@gmail.com)  
WEBSITE: [www.asianintellect.org](http://www.asianintellect.org)



**Asian Intellect**  
FOR ACADEMIC ORGANIZATION AND DEVELOPMENT INC.

**RESEARCH  
AND  
EDUCATION  
JOURNAL**

**VOLUME 17 NO. 2, DECEMBER 2020**

## **ASIAN INTELLECT**

RESEARCH AND EDUCATION JOURNAL  
Volume 17 No. 2 December 2020

## **EDITORIAL BOARD**

**RODNEY P. DAVIS, PhD**

Editor-in-Chief

**JESUSA A. NOVESTERAS, EdD**

Editorial Consultant

**JULIE LIEZEL A. CALMA, MDA**

Issue Editor

**JANELA MARZEL C. FERRER**

Managing Editor

**MELVIN REN ADDUN**

Circulation

**MICHAEL SAHAGUN**

Layout

**JOAN MARION ADDUN**

Cover Design



# **ASIAN INTELLECT**

[WWW.ASIANINTELLECT.ORG](http://WWW.ASIANINTELLECT.ORG)

SEC REGISTRATION NO. CN201539886

***Excellence through academic and development endeavors***





- 1. All articles must be authorized for publication by the author/s.**
- 2. All the research papers published must have a high degree of scholarship.**
- 3. All the research papers published must be approved by the editorial board.**
- 4. All the research papers published must have undergone evaluation from our corps of referees thru double- blind referee process.**
- 5. The articles may either be written in English or Filipino. All articles written in either languages must be accompanied by an Abstract which is written in English.**
- 6. All contributions must be original.**

# TABLE of CONTENTS

<b>Service Quality in Teaching in Relation to Students Academic Performance</b>	9 - 16
---	--------

*Allan S. Tiempo, PhD*

<b>Teaching Values Education to Post Millennial Learners</b>	
--	--

*Bianca Marie M. Tan, Leandro C. Torreon*

*Allan S. Tiempo, Julius J. Igot, Proceso M. Castil*

*Luzminda G. Machete*

17 - 22

<b>Competence of Teachers Hired During Constant Migration in Private Schools and Its Implication to Students' Academic Performance</b>	23 - 32
--	---------

*Eduardo B. Wapanio, MaEd*

*Co-Authors: Allan S. Tiempo, PhD*

*Leandro C. Torreon, PhD, Julius J. Igot, EdD*

*Luzminda G. Machete, EdD and Proceso M. Castil, EdD*

<b>21st Century Skills and Practices of Teachers in Relation to Teaching Efficiency</b>	33- 43
---	--------

*Jamaica Mae G. Gulay, LPT*

*Co-Authors: Allan S. Tiempo, PhD*

*Leandro C. Torreon, PhD, Julius J. Igot, EdD*

*and Proceso M. Castil, EdD*

<b>Computer Laboratory Management Practices in Surigao State College of Technology: An Assessment</b>	44 - 51
---	---------

*Arvin E. Mag Usara, PhD*

*James M. Dumaguit, Rme, PhD*

# TABLE of CONTENTS

<b>Mobile Legends in Relation to Students' Study Habits and Academic Behavior</b>	52 - 60
<i>Kristine Q. Galia, LPT</i> <i>Co-Authors: Allan S. Tiempo, PhD</i> <i>Leandro C. Torreon, PhD, Julius J. Igot, EdD</i> <i>Luzminda G. Machete and Proceso M. Castil, EdD</i>	
<b>Influence of Teachers' Professional, Interpersonal, Intrapersonal Skills on Teaching Performance</b>	61 - 68
<i>Mary Mater B. Bergantin, Leandro C. Torreon</i> <i>Allan S. Tiempo, Julius J. Igot, Proceso M. Castil</i> <i>Luzminda G. Machete</i>	
<b>Metacognitive Strategies and Intervention Process in Science</b>	69 - 77
<i>Rhoda Gulle Cuysona, Leandro C. Torreon</i> <i>Julius J. Igot, Allan S. Tiempo, Proceso M. Castil</i> <i>Luzminda G. Machete</i>	
<b>Learning Action Cell Session Practices in Relation to School Performance</b>	78 - 84
<i>Rosita C. Yusalina, Leandro C. Torreon</i> <i>Julius J. Igot, Allan S. Tiempo, Proceso M. Castil,</i> <i>Luzminda G. Machete</i>	
<b>Development Communication Students' Perception of Social Media as Strategic Communications Tools</b>	85 - 88
<i>Perlita B. Loverita, DALL</i>	





# SERVICE QUALITY IN TEACHING IN RELATION TO STUDENTS ACADEMIC PERFORMANCE

ALLAN S. TIEMPO, PhD  
Bohol Island State University- Candijay Campus,  
Cogtong, Candijay, Bohol, Philippines

## ABSTRACT

Service quality is a critical measure of organizational performance; it remains at the forefront of both the marketing and service literature. Teachers have been identified as key to good academic performance of students. Service quality in teaching is a critical and an important indicator of enhancing students' performance. With this, the association between service quality in teaching and students' performance has emerged as a topic of vital and strategies concern. Thus, this study sought to establish the level of Service Quality in Teaching in relation to Students' Performance at the Bohol Island State University- Candijay Campus, SY. 2015-2016 with an end view of proposing an enhancement program.. Descriptive - Documentary Research design was used by the researcher for this study in order to determine the relationship between Service Quality in Teaching and students' performance using a modified SERVQUAL model to assess the quality of service, developed by Parasuraman, Zeithaml and Berry in 1988; it employs five dimensions (reliability, assurance, tangibles, empathy and responsiveness (rater). Samples were taken from a total of 300 respondents. The data were analyzed using Chi- square and one-way ANOVA. The results revealed that the level of service quality in teaching is very high. The students' performance in school considerably good which implies at the average level. The respondents perceived equally on the (RATER) instrument as manifested by their performance provided by the teachers. Therefore, it can be inferred that the way the teachers perform their tasks, duties and responsibilities have significant bearing to the academic performance of the students. It is recommended that the School administrators as well as the respective Deans of the different departments should address the Tangibles Issues such as the appearance of physical facilities, equipment, personnel, and Communication materials and the Responsiveness Issues such as willingness to help customers and provide prompt service to have the Best Service Quality in Teaching and increase the level of performance of the students.

*Keywords: Academic Performance, Service Quality, Students, Teaching*

## INTRODUCTION

There is little doubt that the services sector has become a dominant force around the world accounting for about three-quarters of all employments in the USA, UK, Canada, and Australia. It utilizes both skilled and unskilled labour. Between 1980 and 1992, it was reported that the European Union created almost 1.3 million new jobs per year in the service sectors. Services have had major impacts on national economies and have facilitated improved productivity in many economies. For instance, the transport and distribution services have often had the effect of stimulating economic development at local and national levels (Payne, 2013).

In the field of education, Service quality in teaching is commonly noted as a critical prerequi-

site for establishing and enhancing students' performance. In this way, the association between service quality in teaching and students performance has emerged as a topic of significant and strategic concern. In general, research in this area suggests that service quality in teaching is an important indicator of enhancing students' performance (Lehtinen & Lehtinen, 2012).

According to Curson (2004), teaching as a "system of teaching activities intended to induce learning comprising the deliberate and methodical creation and control of those conditions in which learning does occur." The goal of teaching is to establish a sound knowledge base on which students will be able to build as they are exposed to different life experiences. Good teachers can translate information, good judgment experience

and wisdom into relevant knowledge that a student can understand, retain and pass to others.

In the study of Babakus, Pedrick, and Inhofe (1993) as cited by Ramanaiah, (2018), they said that it is common knowledge that effective teaching at the college levels is of great concern as it affects academic performance of students. When teachers have high expectations for students they create a warmer classroom climate, interact with students more frequently, provide more opportunities for students to respond and give more positive feedback, they also present more course material and more challenging topics. In contrast when teachers have low expectations for certain students, they offer fewer opportunities for speaking in class, ask easier questions, give less feedback about students' responses and present few and challenging assignments. Ability of students can change over time, especially when environmental conditions are conducive to such change. Also, teachers should continually take and increase view of students' intelligence and other abilities and continually reassess their expectations and attributions for individual students, modify them as new evidence presents itself (Kekkonenometta & Moneta, 2002).

With this scenario, the researcher wishes to find out the service quality of teaching among faculty members at BISU Candijay Campus and the students' performance in order to make necessary measures that could possibly help the faculty maintain its teaching quality service for the students' common good, to fellow instructors and to the institution itself.

## RELATED LITERATURE

According to Sanders and Rivers [6], teachers have been identified as key to good academic performance of students. They typically draw conclusions about their students relatively early in the school year, forming opinions about one's strengths, weaknesses and potentials for academic success. In many instances teachers size up their students fairly relatively by knowing which one's need help with reading skills, which ones have short attention spans, which ones have trouble working together in the same cooperative groups and so on, and they adapt their instructions and assistance accordingly.

However, Loudon, (2007) believes that in order to enhance the teaching quality of instructors, it is essential that instructors know what factors and criteria are closely related to the professional

development of an instructor. From the perspective of instructors' behaviour, some believe that clarity of lecture, vividness of teaching material, enthusiasm of instructors' course arrangement and willingness to help students in their studies and self-development can be used to measure the teaching performance of instructors. Meanwhile, Reuda, (2002) believes that the qualified instructors should be able to upgrade students' capability effectively, enhance their knowledge and skills, and improve their behaviour and attitude, and then to make contributions to the organizational goal.

Parasuraman, Zeithaml and Berry (1988), defined service quality as ... "a global judgment or attitude relating to the overall excellence or superiority of the service" and they conceptualized a customer's evaluation of overall service quality by applying Oliver's (1980) disconfirmation model, as the gap between expectations and perception of service performance levels. Furthermore, they propose that overall service quality performance could be determined by the measurement scale SERVQUAL that uses five generic dimensions: Tangibility; Reliability; Responsiveness; Assurance; and Empathy. SERVQUAL provides a technology for measuring and managing service quality (SQ). They developed a 22-item instrument with which to measure customers' expectations and perceptions (E and P) of the five RATER dimensions. Four or five numbered items are used to measure each dimension: on responsiveness, on assurance, on tangibility, on empathy, and on reliability as components of service quality.

Several authors have utilized the SERVQUAL instrument to measure the functional quality dimension Parasuraman, et al. (1993). Asubonteng, McLeary, and Swan, (1996) suggested that the SERVQUAL model uses the terms that describe one or more determinants of a "quality service encounter". That is, they suggested that the instrument may be used to assess the service delivery process which happens during the encounter between a service provider and customers, in order to shed some light on our understanding of functional quality. Gronroos, (1993), proposes that service quality consists of technical and functional dimensions, and that a service organization's image functions as a filter in the perception of service quality. The model also proposes that there are direct relationships between service quality perception and the technical and functional quality dimensions, in addition to the indirect effects of technical and functional quality on service quality perception. Finally, the model sug-

gests that service quality leads to customer satisfaction.

According to Deming, (1986) as cited by Andrin, (2011), Quality is a positive concept meaning how useful or valuable a product is to the person who purchases it rather than a negative concept being the absent of defects. Deming emphasizes that schools no longer need to rely on examinations to assure quality. Provided sufficient attention is paid to the quality of teaching system, examining every student on everything they have learned will, therefore be unnecessary.

In another study Guolla, (2015), it was found out through a comparison among different factors such as the students learning perceptiveness, the instructors enthusiasm, the instructors organization of course material and class presentations, the interaction between the instructors and the students, the amiability of the instructors and the rapport between instructors and students, the rationality between the breadth of the content of teaching materials and the appropriateness of the supplementary teaching materials of students evaluation of educational quality can be viewed as the criteria for measuring teaching quality.

Bonstingle, (1992) as cited by Avila (2017), she emphasized that teaching methods are the vehicles we use to lead our students towards particular outcome. Campbell, (1997) also argued that teaching methods may be viewed as a structure of the process whereby classroom input is transformed into output. In management terms, methodologies of instruction are made of the techniques essential to the learner's directed progress. The most accepted criterion for measuring good teaching is the amount of students learning that occur. There are consistently high correlation between students' rating of the amount learned in a course and their overall rating of the lecturer and the course. Those who learned more gave their lecturers higher ratings (Joyce, 1986). The study also looked at effective teaching as having total student participation and following the class in by becoming part of them and also making subject taught more practical for easy comprehension.

Regardless of the teaching methods used, an instructor must properly organize the relevant materials; follow a plan of action to serve as a guide in a logical manner toward the desired goal. Furthermore, a systematic plan of action which requires the use of an appropriate syllabus must contain a description of each lesson, including objectives and completion standards.

Service quality, quality teaching and effective teaching methods are significant keys in enhanc-

ing students' performance. In all preparation for service quality in teaching, the instructor must: establish the objective and desired outcomes, research into the subjects, properly organize teaching materials, plan production classroom activities, providing clear, complete directions and instructions to students on what to do in what orders, with what materials and when appropriate, use suitable language and, use different types of delivery depending on requirements of any particular circumstance.

## STATEMENT OF THE PROBLEM

This study sought to establish the Level of Service Quality in Teaching in relation to Students' Academic Performance at the Bohol Island State University- Candijay Campus, SY. 2015-2016 with an end view of proposing an enhancement program.

Specifically, this study aimed to know the following questions:

1. What is the profile of the respondents in terms of:
  - 1.1 Sex;
  - 1.2 age; and
  - 1.3 year level
2. What is the level of service quality in teaching assessed by student-respondents in terms of:
  - 2.1 Reliability;
  - 2.2 Assurance;
  - 2.3 Tangibles;
  - 2.4 Empathy;
  - 2.5 Responsiveness; and
  - 2.6 Student performance?
3. What is the students' academic performance as measured by their Grade Point Average (GPA)?
4. Is there a significant relationship between Service Quality in Teaching and students' academic performance?
5. Is there a significant degree of variances on the service quality in teaching as perceive by the respondents when respondents are grouped according to college?

## RESEARCH METHODOLOGY

Descriptive - Documentary Research design was used by the researcher for this study in order to determine the relationship between Service Quality in Teaching and students' performance using a modified SERVQUAL model to assess

the quality of service, developed by Parasuraman, Zeithaml and Berry in 1988; it employs five dimensions (reliability, assurance, tangibles, empathy and responsiveness (rater). Samples were taken from a total of 300 respondents.

## RESEARCH LOCAL AND SUBJECTS

The study was conducted at the Bohol Island State University- Candijay Campus, Cogtong, Candijay, Bohol. Students from each of the three colleges will be stratified according to classes. 100 students were randomly selected from each college. Thus, making 300 students will be sampled from each of the three colleges the College of Teacher Education, the College of Technology and Allied Sciences and the College of Fisheries and Marine Sciences.

## RESEARCH INSTRUMENT

This study will make use of the SERVQUAL model measures service quality which contains five dimensions: reliability; responsiveness, assurance, empathy and tangibles. These dimensions are defined as follows: Reliability: Ability to perform the promised service dependably and accurately; Responsiveness: Willingness to help students and provide prompt service; Assurance: Knowledge and courtesy of employees and their ability to inspire trust and confidence. Empathy: Caring individual attention the school provides its students. Tangibles: Physical facilities, equipment, and appearance of personnel.

## RESEARCH PROCEDURE

Upon the receipt of the approval, questionnaires were distributed to the respondents. The respondents were assisted and were given sufficient time to answer the questionnaires. The researcher collated the answered questionnaires. The collated data were tabulated, analyzed and interpreted using descriptive statistics.

## STATISTICAL TREATMENT

The research was based on both qualitative and quantitative analyses. The findings of this research will be reported by means of descriptive statistics and quantitative analysis. The data will

be analyzed using the Statistical Package for Social Scientist (SPSS) The data were analyzed using Chi-square and one-way ANOVA. The descriptive presentation will include bar charts, pie charts, histograms etc., while quantitative analysis will include the following:

A multiple regression statistical techniques was used to assess the relationship between the independent SERVQUAL variables, reliability (R), assurance (A), tangibility (T), empathy (E), and responsiveness (Re), and the dependent variable student performance (Sp). The multiple regression equation will be:  $Sp = f(R, A, T, E, R)$ . Where: Sp= Student performance R = Responsiveness A = Assurance T = Tangibility E =Empathy R = Reliability.

## FINDINGS

The following were derived from the survey results: This section presents the data gathered as prescribed in the main and sub-problems, offered analysis as aided by the statistical tool and made analysis of the phenomenon as maybe permitted by the theoretical framework of this research paper.

**Table 1. Profile of the Respondents**

College	CTE	CTAS	CFMS	F	%
<b>Sex</b>					
Male	15	34	42	91	30.33
Female	85	66	58	209	69.67
N	100	100	100	300	100
%	<b>33.33</b>	<b>33.33</b>	<b>33.33</b>		
<b>Age Range</b>					
17-20	79	68	75	222	74
21-23	16	25	17	58	19.33
24-26	2	5	6	13	4.33
27-Above	3	2	2	7	2.33
<b>Year Level</b>					
Third	58	62	50	170	56.67
Fourth	42	38	50	130	43.33

As reflected in Table1, for Sex distribution among the respondents, there were 91 or 30.33 % male respondents while 209 or 69.67 % female respondents. As can be seen majority of the respondents for this study were female. As for Age distribution, 222 or 74.00 % were ages 18-20 while 7 or 2.33 % were ages 27-above which mean to say that the bulk of the respondents were of appropriate school ages. As for Year Level, there were 170 or 56.67 % respondents that came from the 3rd year level while 130 or 43.33 % came from the 4th year level. Majority of the respondents came from the 3rd year levels.

**Table 2.1. Level of Service Quality in Teaching in terms of Reliability**

Items	CTE		CFMS		CTAS		Mean	
<b>A. Reliability</b>								
1. Teachers are punctual in reporting to their classes.	3.48	VH	3.38	VH	3.44	VH	<b>3.43</b>	<b>VH</b>
2. The teachers' usage of methods in teaching is effective.	3.50	VH	3.30	VH	3.41	VH	<b>3.40</b>	<b>VH</b>
3. The number / volume of exercise our teacher give us are just enough.	3.44	VH	3.32	VH	3.22	H	<b>3.33</b>	<b>VH</b>
<b>Composite Mean</b>	<b>3.47</b>	<b>VH</b>	<b>3.33</b>	<b>VH</b>	<b>3.36</b>	<b>VH</b>	<b>3.39</b>	<b>VH</b>

In table 2.1, a composite mean of 3.39 was collected with an interpretation of Very High. Teachers are punctual in reporting to their classes garnered a weighted mean of 3.43 with an interpretation of Very High; The teachers' usage of methods in teaching is effective culled a weighted mean of 3.40 with an interpretation of Very High while The number / volume of exercise our teacher give us are just enough generated a weighted mean of 3.33 with an interpretation of Very High.

**Table 2.2. Level of Service Quality in Teaching in terms of Assurance**

Items	CTE		CFMS		CTAS		Mean	
<b>B. Assurance</b>								
1. Teachers have adequate knowledge to be able to answer your questions in class.	3.68	VH	3.56	VH	3.47	VH	<b>3.57</b>	<b>VH</b>
2. Teachers show interest in what they teach.	3.77	VH	3.45	VH	3.53	VH	<b>3.58</b>	<b>VH</b>
3. Teachers give assurance with regards to the services they offer you.	3.50	VH	3.34	VH	3.31	VH	<b>3.38</b>	<b>VH</b>
<b>Composite Mean</b>	<b>3.65</b>	<b>VH</b>	<b>3.45</b>	<b>VH</b>	<b>3.44</b>	<b>VH</b>	<b>3.51</b>	<b>VH</b>

Table 2.2 shows the Level of Service Quality in Teaching in terms of Assurance. It has a composite mean of 3.51 was generated with an interpretation of Very High. Teachers show interest in what they teach amassed a weighted mean of 3.58 with an interpretation of Very High; Teachers have adequate knowledge to be able to answer your questions in class produced a weighted mean of 3.57 with an interpretation of Very High; while Teachers give assurance with regards to the services they offer you mustered a weighted mean of 3.38 with an interpretation of Very High.

**Table 2.3. Level of Service Quality in Teaching in terms of Tangibles**

Items	CTE		CFMS		CTAS		Mean	
<b>C. Tangibles</b>								
1. Teachers use relevant teaching- aids in their teaching.	3.46	VH	3.32	VH	3.31	VH	<b>3.36</b>	<b>VH</b>
2. The physical facilities such as tables and chairs in the school are appropriate to enhance students' performance.	2.88	H	3.04	H	3.05	H	<b>2.99</b>	<b>H</b>
3. The notes and handouts from teachers are appropriate as background materials for students.	3.31	VH	3.33	VH	3.43	VH	<b>3.36</b>	<b>VH</b>
<b>Composite Mean</b>	<b>3.22</b>	<b>H</b>	<b>3.23</b>	<b>H</b>	<b>3.26</b>	<b>VH</b>	<b>3.24</b>	<b>H</b>

It can be gleaned in table 2.3, the Level of Service Quality in Teaching in terms of Tangibles that a composite mean of 3.24 was acquired with an interpretation of High. Teachers use relevant teaching- aids in their teaching gained a weighted mean of 3.36 with an interpretation of Very High; The notes and handouts from teachers are appropriate as background materials for students accumulated a weighted mean of 3.36 with an interpretation of Very High while The physical facilities such as tables and chairs in the school are appropriate to enhance students' performance hoarded a weighted mean of 2.99 with an interpretation of High.

**Table 2.4. Level of Service Quality in Teaching in terms of Empathy**

Items	CTE		CFMS		CTAS		Mean	
<b>D. Empathy</b>								
1. Teachers give individual attention to their students.	3.31	VH	3.29	VH	3.36	VH	<b>3.32</b>	<b>VH</b>
2. Teachers are generally courteous.	3.56	VH	3.44	VH	3.38	VH	<b>3.46</b>	<b>VH</b>
3. Teachers observe confidentiality when information is disclosed to them.	3.40	VH	3.31	VH	3.27	VH	<b>3.33</b>	<b>VH</b>
4. Teachers show sincere interest in solving academic problems.	3.60	VH	3.48	VH	3.45	VH	<b>3.51</b>	<b>VH</b>
5. Teachers show empathy in dealing with their students concerns.	3.60	VH	3.39	VH	3.40	VH	<b>3.46</b>	<b>VH</b>
<b>Composite Mean</b>	<b>3.49</b>	<b>VH</b>	<b>3.38</b>	<b>VH</b>	<b>3.37</b>	<b>VH</b>	<b>3.42</b>	<b>VH</b>

As reflected in table 2.4, a composite mean of 3.42 was collected with an interpretation of Very High. Teachers show sincere interest in solving academic problems garnered a weighted mean of

3.51 with an interpretation of Very High; Teachers show empathy in dealing with their students concerns culled a weighted mean of 3.46 with an interpretation of Very High; Teachers are generally courteous generated a weighted mean of 3.46 with an interpretation of Very High; Teachers observe confidentiality when information is disclosed to them produced a weighted mean of 3.33 with an interpretation of Very High while Teachers give individual attention to their students amassed a weighted mean of 3.32 with an interpretation of Very High.

**Table 2.5. Level of Service Quality in Teaching in terms of Responsiveness**

Items	CTE		CFMS		CTAS		Mean	
<b>E. Responsiveness</b>								
1. Teachers give relevant exercises regularly.	3.40	VH	3.25	VH	3.28	VH	<b>3.31</b>	<b>VH</b>
2. Teachers mark exercises with written feedback and on time.	3.18	H	3.19	H	3.21	H	3.19	H
3. Teachers show willingness in addressing academic problems.	3.56	VH	3.49	VH	3.42	VH	3.49	VH
<b>Composite Mean</b>	<b>3.38</b>	<b>VH</b>	<b>3.31</b>	<b>VH</b>	<b>3.30</b>	<b>VH</b>	<b>3.33</b>	<b>VH</b>

As revealed here in table 2.5, the level of service quality in teaching in terms of responsiveness, it generated a composite mean of 3.33 with an interpretation of Very High. Teachers show willingness in addressing academic problems mustered a weighted mean of 3.49 with an interpretation of Very High; Teachers give relevant exercises regularly reaped a weighted mean of 3.31 with an interpretation of Very High while Teachers mark exercises with written feedback and on time acquired a weighted mean of 3.19 with an interpretation of High.

Table 2.6 displays the level of service quality in teaching in terms of students' performance. A composite mean of 3.51 was generated with an interpretation of Very High. Teachers provide enough information on how to improve students' performance gained a weighted mean of 3.56 with an interpretation of Very High; Teachers are concern about their students' performance through feedbacking accumulated a weighted mean of 3.50 with an interpretation of Very High while Teachers report in writing timely and student-friendly comments to improve students' performance hoarded a weighted mean of 3.46 with an interpretation of Very High.

**Table 2.6. Level of Service Quality in Teaching in terms of Students' Performance**

Items	CTE		CFMS		CTAS		Mean	
<b>F. Student Performance</b>								
1. Teachers are concern about their students' performance through feedbacking.	3.66	VH	3.40	VH	3.44	VH	<b>3.50</b>	<b>VH</b>
2. Teachers provide enough information on how to improve students' performance	3.69	VH	3.50	VH	3.49	VH	<b>3.56</b>	<b>VH</b>
3. Teachers report in writing timely and student- friendly comments to improve students' performance.	3.55	VH	3.44	VH	3.38	VH	<b>3.46</b>	<b>VH</b>
<b>Composite Mean</b>	<b>3.63</b>	<b>VH</b>	<b>3.45</b>	<b>VH</b>	<b>3.44</b>	<b>VH</b>	<b>3.51</b>	<b>VH</b>

**Table 3. Students' Performance as Measured by their Grade Point Average (GPA)**

Grades			CTE		CFMS		CTAS			
Rating	Equivalent	Description	F	FX	F	FX	F	FX	F	FX
<b>1</b>	100	Excellent	0	0	0	0	0	0	0	0
<b>1.1</b>	98-99	Excellent	0	0	0	0	1	1.1	1	1.1
<b>1.2</b>	96-97	Excellent	1	1.2	0	0	1	1.2	2	2.4
<b>1.3</b>	94-95	Excellent	0	0	0	0	5	6.5	5	6.5
<b>1.4</b>	92-93	Very Good	1	1.4	3	4.2	13	18.2	17	23.8
<b>1.5</b>	90-91	Very Good	5	7.5	11	16.5	4	6	20	30
<b>1.6</b>	89	Very Good	14	22.4	19	30.4	5	8	38	60.8
<b>1.7</b>	88	Good	20	34	15	25.5	11	18.7	46	78.2
<b>1.8</b>	87	Good	25	45	12	21.6	16	28.8	53	95.4
<b>1.9</b>	86	Good	16	30.4	7	13.3	15	28.5	38	72.2
<b>2</b>	85	Good	14	28	12	24	3	6	29	58
<b>2.1</b>	84	Good	4	8.4	9	18.9	5	10.5	18	37.8
<b>2.2</b>	83	Good	0	0	5	11	10	22	15	33
<b>2.3</b>	82	Good	0	0	3	6.9	4	9.2	7	16.1
<b>2.4</b>	81	Good	0	0	1	2.4	4	9.6	5	12
<b>2.5</b>	80	Good	0	0	1	2.5	1	2.5	2	5
<b>2.6</b>	79	Fair	0	0	1	2.6	0	0	1	2.6
<b>2.7</b>	78	Fair	0	0	1	2.7	0	0	1	2.7
<b>2.8</b>	77	Fair	0	0	0	0	1	2.8	1	2.8
<b>2.9</b>	76	Fair	0	0	0	0	1	2.9	1	2.9
<b>3</b>	75	Fair	0	0	0	0	0	0	0	0
Sum			100	178.3	100	182.5	100	182.5	300	543.3
<b>Average</b>			<b>1.78</b>	<b>1.78</b>	<b>1.83</b>	<b>1.83</b>	<b>1.83</b>	<b>1.83</b>	<b>1.81</b>	<b>1.81</b>

Table 3 exhibits the students' performance as measured by their Grade Point Average (GPA). General pattern observed among the three colleges reveals that majority of the students had their GPA (grade point average) in the "Good" level (1.6-2.5) with a frequency or percentage of ninety three (93) or 93%, eighty four (84) or 84% and seventy four (74) or 74% for CTE, CFMS, and CTAS, respectively. This leads to a total of two hundred fifty one (251) or 83.11% bearing the majority of students' GPA in the said range/description.



On the other hand, data showed that least number of students had GPA's within the extreme ranges (i.e., 1.0-1.2 "Excellent", 2.6-3.0 "Fair"). There were only three (3) or 0.99% and six (6) or 1.99% of the student population whose GPA's fall within "Excellent" and "Fair," respectively. By college, the same trend is also shown. Meanwhile, there is uniform value for the GPA mean for the three colleges (i.e., 1.8- Good). This implies that majority of the students' GPA's are within the average level.

**Table 4. Correlation Between Service Quality and Students' Performance**

Students	Service Quality in Teaching		Academic Performance		XY
Students	X	X <sup>2</sup>	Y	Y <sup>2</sup>	
Sum	1021.55	3526.2025	545.22	1015.5502	1854.5115
Mean	3.40		1.81		

$r = -0.05989$   
 Critical Value of  $r$  at 298 df (0.05) = 0.01132  
 Result: Significant  
 Ho : Rejected

The table above reveals that the computed  $r$  value which is  $-0.5989$  is greater than the table value of  $r$  which is  $0.01132$  with 298 df at .05 level of significance. This finding has made the null hypothesis rejected. Hence, there is a significant relationship between service quality in teaching and academic performance. It is then can be inferred that the way teachers perform their tasks, duties and responsibilities as teachers have a significant bearing to the students' academic performance.

**Table 5. Analysis of Variance on the Service Quality in Teaching When Respondents are Grouped According to Colleges**

Teach ers	CTE		CFMS		CTAS		Mean	
	X <sub>1</sub>	(X <sub>1</sub> ) <sup>2</sup>	X <sub>2</sub>	(X <sub>2</sub> ) <sup>2</sup>	X <sub>3</sub>	(X <sub>3</sub> ) <sup>2</sup>	WM	DV
1	3.47	12.0640	3.33	11.1111	3.36	11.2672	3.39	VH
2	3.65	13.3225	3.45	11.9025	3.44	11.8107	3.51	VH
3	3.22	10.3469	3.23	10.4329	3.26	10.6493	3.24	H
4	3.49	12.2080	3.38	11.4379	3.37	11.3704	3.42	VH
5	3.38	11.4244	3.31	10.9561	3.30	10.9120	3.33	VH
6	3.63	13.2011	3.45	11.8795	3.44	11.8107	3.51	VH
n	6		6		6			
Sum	20.85	72.5670	20.15	67.7200	20.17	67.8203		
Mean	3.47		3.36		3.36		3.40	VH
SS	72.4352		67.6839		67.7959			

CF = 207.8625  
 TSS = 0.24493  
 BSS = 0.05246  
 WSS = 0.19

## ANOVA TABLE

Sources of	df	Sum of	Mean	F-Value	
Variation		Squares	Squares	Computed	Tabular (0.05)
Between Groups	2	0.05246	0.02623	2.04440	3.6800
Within Groups	15	0.1925	0.01283	Result: Insignificant	
Total	17	0.24493		Ho: Accepted	

Table 5 shows that the computed F-value of 2.0440 is lesser than the critical value of 3.680 at .05 level of significance thus, led the acceptance of the null hypothesis that there is no significant degree of variance on the dimensions of quality service in teaching when respondents are grouped according to colleges. This further implies that the respondents from the CTE, CFMS and CTAS does not significant differ in their perception on the reliability, assurance, tangibles, empathy, responsiveness and students' performance manifested and given by their teachers.

## Multiple Comparison Using Scheffe's Test

Between Colleges	Mean1	Mean2	D	n1	n2	F'	F*K-1	Interpretation
CTE vs CFMS	3.47	3.36	0.12	6	6	3.1401	7.360	Insignificant
CTE vs CTAS	3.47	3.36	0.11	6	6	2.9913	7.360	Insignificant
CFMS vs CTAS	3.36	3.36	0.00	6	6	0.0018	7.360	Insignificant

As show in the data when subjected to a Scheffe's Test, it was found out that the three colleges does not significantly differ hence, quality of service was perceived to be very high in the aforementioned colleges.

## CONCLUSION

An overall composite mean of 3.47 was generated for CTE (Very High) while for the CFMS and CTAS both garnered an equal overall composite mean of 3.36 (Very High). As can be deduced from the data, it was the CTE who have a very high rating on service quality in teaching. As for Academic Performance, there is uniform value for the GPA mean for the three colleges (i.e., 1.8-Good). This implies that majority of the students' GPA's are within the mediocre level. There is no significant degree of variance on the dimensions of quality service in teaching when respondents are grouped according to colleges. This further implies that the respondents from the CTE, CFMS and CTAS does not significant differ in their per-

ception on the reliability, assurance, tangibles, empathy, responsiveness and students performance manifested and given by their teachers. There is a significant relationship between service quality in teaching and academic performance. It is then can be inferred that the way teachers perform their tasks, duties and responsibilities as teachers have a significant bearing to the students' academic performance.

## RECOMMENDATIONS

As a result of the study, it is recommended that the school administrators as well as the respective Dean of the CTE, CTAS and the CFMS should address the Tangibles Issues such as the appearance of physical facilities, equipment, personnel, and Communication materials; and the respective Dean of the CTE and the CFMS should address the Responsiveness Issues such as willingness to help customers and provide prompt service; and a study should be made by other researchers on variables not covered in this study.

## REFERENCES

- Andrin, G. R., (2011). *Professional preparation, practices, and teaching effectiveness among the grade school teachers of the university of Cebu*. Unpublish Dissertation University of Bohol Graduate School.
- Avila, L.B., (2012). *Total Quality Management (TQM) Practices of school administrators in relation to school performance among teacher education institutions in the province of Quezon*. <https://knepublishing.com/index.php/KnE-Social/article/view/2426/5330>
- Campbell, W. E., and Smith, K. A. (Eds.) (1997). *New paradigms for college teaching*. Edina, MN: Interaction Book Company.
- Curson, L. A. (2004). *Teaching and further education*. London, Education, Cassel Education Limited.
- Guolla, M. (2015). *Assessing the teaching quality to student satisfaction relationship: Applied customer satisfaction research in the classroom*. Journal of marketing theory and practice. Vol. 7, no.3, pp 87-97
- Gronroos, C. (1993). *Toward a Third Phase in Service Quality Research: Challenges and Future Directions*. in Swartz, T.A., Bowen, D.E., Brown, S.W. (Eds), *Advances in Services Marketing and Management: Research and Practice*, JAI Press, Greenwich, CT, Vol. Vol. 2 pp.49-64.
- Joyce, B. and Weil M. (1986), *Models of Teaching*. Prentice-hall, Eaglewood Cliff, NJ.
- Kekkonenometta, S. and Moneta, G. B (2002). *E-Learning in Hong Kong: Company Learning Outcomes in Online Multimedia and Lecture Versions of an Introduction Computing Course*. British Journal of Educational Technology, Vol. No. 4, pp. 423-33.
- Lehtinen, J. R., Lehtinen, O. (2012). *"Service quality: A study of quality dimensions"*. Service Management Institute, Helsinki unpublished working paper.
- Louden, W. (2000). *Standards for standard: The development of Australian professional standards for teaching*. Australian journal of education, vol. 44 No. 2, pp, 118-34.
- Payne, A. (2013). *The essence of services marketing*. Prentice Hall, U. K.
- Parasuraman, A., V.A. Zeithaml, L.L. Berry (1985). *A Conceptual Model of Service Quality and its Implications for Future Research*. Journal of Marketing, Vol. 49 pp.41-50.
- Parasuraman, A., V.A. Zeithaml and L.L. Berry (1993). *Research note: More on Improving Service Quality Measurement*. Journal of Retailing, Vol. 69, No. 1, pp. 140-147.
- Ramanaiah, M., (2018). *Service Quality Measurement at Brand Factory: An Empirical Study*. SAGE Journal. <https://journals.sagepub.com/doi/abs/10.1177/0258042X17749650?journalCode=mlsa>
- Reuda, M. (2002). *How to make e-learning work for your company*. Workspan, Vol. 45 No. 12, pp. 50-53.

# TEACHING VALUES EDUCATION TO POST MILLENNIAL LEARNERS

BIANCA MARIE M. TAN, LEANDRO C. TORREON  
ALLAN S. TIEMPO, JULIUS J. IGOT, PROCESO M. CASTIL, LUZMINDA G. MACHETE  
Bohol Island State University – Candijay Campus,  
Cogtong, Candijay, Bohol, Philippines

## ABSTRACT

Values developed differently to each learner. Multiple factors can be considered why and how there is a drastic change in Post Millennials' values. Parents as the primary teacher and model are responsible for the formation of values. Once the child enters school, teacher serves as the second parent of the learner in which it is the priority of the school or teacher to inculcate Values Education (Edukasyon sa Pagpapakatao) since Post Millennials spend more time in school. This study was conducted to determine the teachers' teaching strategies of values education in relation to post millennial learners' academic performance in Edukasyon sa Pagpapakatao (EsP) and behavior in the public elementary schools. This study employed descriptive- documentary design anchored School Form 9 tool used to describe and indicate the observed values of pupils. For the teachers' strategies in teaching Edukasyon sa Pagpapakatao, it was modified from Reyes, (2019). There were forty (40) items for the teaching of values education while for the teachers' strategies comprised of twenty (20) items. The quantitative data from the survey-checklists were utilized in order to address the primary aim of this study. There were a total number of four hundred forty- two (442) respondents who participated in the survey, comprising of one hundred nine (109) teachers and three hundred thirty- three (333) parents. The data were tabulated, analyzed, interpreted, and reported. The researcher achieved the following findings: Pupils' academic performance does not significantly depend on teachers' teaching strategies used in Values Education or Edukasyon sa Pagpapakatao; pupils' behavior cannot only be defined by grades or academic performance. It is recommended that there should be programs or activities through the involvement of parents, teachers, school administrators and stakeholders to build a positive relationship to foster inner transformation of the individual to encourage characterization of the desirable Filipino Values.

*Keywords: Academic Behavior, Academic Performance, Post millennial, Teachers' strategy, Values Education*

## INTRODUCTION

In today's age of time, the values of youths differ significantly from those of the past generations. The so-called post millennial learners aging 8 to 12 years old have undergone a serious modification. Undeniably, their values change. As a matter of fact, a number of desirable Filipino values slowly vanish as days pass by. Because of this inevitable scenario, Values Education classes play a formidable role to address the issue. Unfortunately, most of the schools focuses more on grades rather than the development and sustainment of values, resulting to the degeneration of values.

Values should not be treated as an ideal con-

cept, but as an empowering tool to overcome challenges in millennial behaviors, which are the ill effect of mass media, globalization, and commercialization (NCERT, 2000). In addition, Martin Luther King stressed that intelligence plus character is the goal of true education. Consequently, addressing this issue is a good action to help produce morally upright post millennial learners.

Multiple factors should be considered when it comes to the behavior of millennial pupils and these factors must be regarded in order to become a value laden individual. Beyond this, researchers found out that there is an increased need for an understanding of the values development and for the methods of Values Education to be included in

the pre-service and in-service education of teachers (Zbar, 2013).

As observed in St. Jude ZAQ Child Academy, Valencia, Bohol, most of the learners know what is good from bad. However, it is evident that characterization or putting them into action is rarely observed. Stedjie (2014), believes that Values Education is now considered as an important issue worthy for a thorough research. Thus, the researcher conducted this study to better understand the teachers' teaching strategies used that affect the pupils' academic performance and behavior.

## LITERATURE BACKGROUND

Values education is a process of teaching and learning about the ideals that a society deems important (Department of Education, Science and Training 2005; Lovat & Toomey 2007; Robb 2008). While this learning can take a number of forms, the underlying aim is for learners not only to understand the values, but also to reflect them in their attitudes and behavior, and contribute to society through good citizenship and ethical practice.

Parents as the first teacher and role model of a child are responsible for the molding the child's values (Mary, 2016). However, study shows that majority of parents fail to do the role. Thus, parents seek the help from school and implementer to fill the gaps. In the article of Camp (2019), it asserts that it is the priority of the schools to teach values since pupils spend most of their time in schools and they need to learn what is good altogether and in the right way. Thus, Values education plays a vital role as it is the place where teaching learning process happens, where teachers carry the responsibility of pupils learning and values development, and therefore, introducing values, specially to post millennial, is also a challenge. Furthermore, "the role of the teachers in strengthening students' academic and behavior is of paramount importance" as cited by Kurt Candilas (2018).

Accordingly, Values Education or Edukasyon sa Pagpapakatao (EsP) is considered as equally important as academic and physical development of learners (Bamkin, 2016). It is a subject which aims pupils to grasp of underlying principles, together with the ability to act on those principles, values position and the settled disposition. Thus, Department of Education emphasizes that cognitive competencies and skills are complemented by Values Education anchored on the Vision, Mis-

sion, and Core Values to holistically develop 21st Filipino learners (DepEd Order No. 36, s. 2013). The Core Values of DepEd ensure that love for God, love for fellowmen, love for nature, and love for the country are present to the teaching and learning process. Through such values, the vision of creating Filipino citizens who passionately love their country and in the same manner possessing values and competencies to reach their full potential and contribute to nation building, will be put into reality.

Due to fast urbanization and modernization, the moral values of the post millennials are degrading day by day (Tomar, 2019). One should recognize the fact that Values Education provides virtues that learners need to have in order to be successful, although, realistically speaking characterization cannot solve all the negativities in the world but it does improve and influence the learners in positive ways to become a better person. In accordance with House bill No. 609, "An Act to Strengthen the Common Core of Values and Inculcate Universally", it is important that etiquette and moral uprightness is introduced and taught for all Filipinos to keep up with the modern era and to act accordingly to the customary set of behavior.

The moral human development theory states that moral growth begins in early life and continues in all the stages throughout life. Learners should be guided with values education as early as possible. As cliché as it sounds, the earlier they are taught, the better they will respond.

Therefore, values education greatly affects the behavior of post millennial learners. School as one of the molders of child's values should also give focus on morality and ethics. Furthermore, character builds values and values in turn develop pupils to who they are in the future. Consequently, the researcher conducted this study on teaching values education to post millennial learners.

## OBJECTIVES OF THE STUDY

This study primarily aimed to determine the teaching strategies of Values Education to post millennial learners of the public elementary schools.

Specifically, it sought to answer the following sub-problems:

1. What is the profile of the teachers in terms of age; sex; grade level; and teaching experience in teaching Edukasyon sa Pagpapakatao?
2. What is the profile of the parents in terms of age; sex; and grade level of their child?

3. What is the pupils' academic behavior as assessed by the teachers; and parents?
4. What is the assessment of the respondents on the strategies used by the teachers in teaching Edukasyon sa Pagpapakatao (EsP)?
5. What is the pupils' academic performance in Edukasyon sa Pagpapakatao (EsP)?
6. Is there a significant relationship between the pupils' academic performance in Edukasyon sa Pagpapakatao (EsP) and their academic behavior?
7. Is there a significant correlation between the pupils' academic performance in Edukasyon sa Pagpapakatao (EsP) and the strategies used by the teachers in teaching Edukasyon sa Pagpapakatao (EsP)?

## RESEARCH METHODOLOGY

Descriptive- documentary design and correlational design are used with the aid of the questionnaire as a gathering tool. The researcher collects the necessary information through a questionnaire to determine the teachers' teaching strategies of values education to the pupil's academic behavior.

This study focused on selected parents, teachers and pupils of the public elementary schools in the district of Guindulman, Bohol. The said participants were one hundred - nine (109) purposively selected teachers comprised of ninety-nine (99) females and ten (10) male respondents. Further, there was a total of three hundred thirty-three (333) randomly selected parent respondents from the said public schools.

This study was anchored on School Form 9 (SF-9) tool used to describe and indicate the observed values of pupils while for the teachers' strategies in teaching Edukasyon sa Pagpapakatao, it was adopted from Reyes, (2019).

There were forty (40) items for the teaching of values education while for the teachers' strategies was comprised of twenty (20) items. For statistical purposes, the answers on the questionnaires, were categories as Always, Sometimes, Rarely, and Not observed, with a weight equivalent of 4, 3, 2, and 1 respectively from which the weight means were derived. To further test the significant result, the gathered data were computed, analyzed, interpreted using SPSS (Statistical Package for the Social Sciences), which is a software package used for interactive, or batched, and statistical analysis.

## RESULTS AND DISCUSSIONS

This study was conducted among grades 3, 4, 5 and 6 pupils, teachers and parents in all the public elementary schools in Guindulman District of the province of Bohol. The findings are herein presented and analyzed in light of the various aspects of the research problem.

In order to find out the reliability of the respondents as a source of basic information, a look was made into their personal profile such as the age, gender, handled grade level and teaching experience.

Age. Among the 109 teacher respondents age bracket of 30- 39 has the highest frequency of one - hundred twenty (120) or 36.04% while the age bracket of 60 and above with a frequency of thirteen (13) or 3.90% got the lowest. It illustrates that the respondents were at the young adulthood period who are capable of forming intimate and reciprocal relationships.

**Table 1. Teacher-Respondents Profile**  
N=109

Items	F	%	Rank
<b>1. Age</b>			
21-29	19	17.43	3.5
30-39	33	30.28	2
40-49	36	33.03	1
50-59	19	17.43	3.5
60 and above	2	1.83	5
<b>2. Sex</b>			
Male	10	9.17	2
Female	99	90.83	1
<b>3. Handled Grade</b>			
3	26	23.85	4
4	28	25.69	1.5
5	27	24.77	3
6	28	25.69	1.5
<b>4. Teaching Experience</b>			
5 years below	33	30.28	1
6-10 years	23	21.10	2.5
11-15 years	23	21.10	2.5
16-20 years	20	18.35	4
21-25 years	4	3.67	5
26-30 years	3	2.75	6.5
31 years and above	3	2.75	6.5

Sex. Majority of the teachers were female with ninety- nine (90.8 percent) and ten (9.17 percent) male teacher respondents. It exemplifies that female population dominated the pool list in the district of Guindulman.

Handled Grade. The highest frequency of twenty- eight (25.69 percent) belonged to grades 4 and 6, followed by grade 5 with a frequency of twenty- seven (24.77 percent) Meanwhile, the lowest frequency was grade 3 with a frequency of twenty- six (23.85 percent)

Teaching experience. Most of the respondents of the teacher respondents have spent 5 years and below (30.28 percent) while only three (2.75 percent) has the lowest frequency for the 26- 30 years and 31 years- above, respectively. This implies that there is a great possibility that the teaching strategies may vary among the new teachers in comparison to their experienced colleagues working in longer duration of time.

Age. The age bracket of 30- 39 has the highest frequency of one- hundred twenty (36.04 percent) while the age bracket of 60 and above with a frequency of thirteen (3.90 percent) got the lowest. It illustrates that the respondents were at the young adulthood period that are capable of forming intimate and reciprocal relationships.

**Table 2. Profile of Parent-Respondents**  
N= 333

Items	F	%	Rank
<b>1. Age</b>			
21-29	52	15.62	4
30-39	120	36.04	1
40-49	95	28.53	2
50-59	53	15.92	3
60 and above	13	3.90	5
<b>2. Sex</b>			
Male	84	25.23	2
Female	249	74.77	1
<b>3. Handled Grade</b>			
3	78	23.42	4
4	87	26.13	1.5
5	81	24.32	3
6	87	26.13	1.5

Sex. Majority of the two- hundred forty- nine (74.77 percent) were female parents and eighty- four (25.23 percent) were male- respondents. Therefore, the female parent respondents dominated over their male counterpart.

Grade level. Most of the parents whose children were under grades four (4) and six (6) with a frequency of eighty- seven (26.13 percent) while seventy- eight (23.42 percent) were under the grade three respectively.

**Table 3. Academic Behavior of Respondents as Assessed by the Respondents**  
N=442

Statements	Parent			Teacher		
	WM	DI	Rank	WM	DI	Rank
<b>Love of God</b>						
1. Express one's spiritual belief while respecting others.	3.40	AO	6	2.77	SO	7
2. Shows adherence to ethical principles by upholding truth.	3.32	AO	7	3.33	AO	6
<b>Love for Fellow</b>						
3. Is sensitive to individual, social differences.	3.53	AO	3	3.72	AO	3
4. Demonstrates contributions toward solidarity.	3.41	AO	4.5	3.24	AO	2
<b>Love for Nature</b>						
5. Cares for the environment.	3.56	AO	2	3.69	AO	4
<b>Love for the Country</b>						
6. Demonstrate pride in being a Filipino	4.38	AO	1	3.67	AO	1
7. Demonstrate appropriate behavior in carrying out school activities in the school, community and country.	3.41	AO	4.5	3.86	AO	5
<b>Composite Mean</b>	<b>3.57</b>	<b>AO</b>		<b>3.54</b>	<b>AO</b>	

Legend:

3.35 – 4.00

2.50 – 3.24

1.75 – 2.49

1.00 – 1.74

- Always Observed

- Sometimes Observed

- Rarely Observed

- Not Observed

Furthermore, the result in table 3 shows that both parents and teachers always observed the behavioral statement towards the pupils. It reveals that the pupils possessed an appreciation of the national tradition and act of patriotism. It further shows that they view themselves as value-oriented individuals by standing on the side of the truth. This means that most pupils have values that promote nationalism and sense of Filipino pride among themselves. Definitely, these values are taught in their homes. Demirel et.al (2016) affirms that parents are the primary factor affecting values of the pupils.

**Table 4. Strategies used in Teaching Values Education (Edukasyon sa Pagpapakatao)**  
N= 109

Statement	WM	DI	Rank
Lecture the content standard.	3.81	AO	1.5
Modeling a new concept and pupils are observing.	3.71	AO	3
Giving positive and negative reinforcement.	3.81	AO	1.5
Telling stories.	3.61	AO	4
Indicate learner's opinion by casting a vote.	3.00	SO	13
Unfinished sentences.	2.75	SO	16
Dyadic and triadic sharing.	2.99	SO	14.5
Agree or disagree	3.36	AO	7
Moral dilemmas with short group discussion.	3.23	SO	8



Case study	2.55	SO	18
Testing principles	3.04	SO	11
Analyzing analogous case	3.01	SO	12
Debate	2.58	SO	17
Research	2.44	RO	19
Rest and relaxation exercise	3.06	SO	10
Meditation and briefing fantasizing imagination	3.20	SO	9
Creativity and mind games	3.42	AO	6
Self-awareness activities	3.50	AO	5
Action Project or community out-reach	2.42	RO	20
The use of computers to present text, video and animation.	2.99	SO	14.5
<b>Composite Mean</b>	<b>3.12</b>	<b>SO</b>	

Legend:

3.35 – 4.00

2.50 – 3.24

1.75 – 2.49

1.00 – 1.74

- Always Observed

- Sometimes Observed

- Rarely Observed

- Not Observed

Table 4 reveals that the strategies indicated are sometimes observed during the teaching of Values Education (Edukasyon sa Pagpapakatao) subject. Teachers mostly used lecture-discussion and reinforcement in teaching core values to their pupils. This indicates that most of the teachers are using the traditional way of teaching post millennial pupils, thus affecting the academic performance in Edukasyon sa Pagpapakatao.

**Table 5. Pupils' Academic Performance in Values Education (Edukasyon sa Pagpapakatao) N= 333**

Descriptor	Grading Scale	F	%	Rank
Outstanding	90-100	151	45.35	1
Very Satisfactory	85-89	91	21.33	2
Satisfactory	80-84	57	17.12	3
Fairly Satisfactory	75-79	34	10.21	4
Did Not Meet Expectations	Below 75	0	0	5

The finding corresponds to the study of Thompson (2002) on the effects of character education on student behavior wherein character education programs may have a positive effect on student behavior. This effect was very evident by the pupils' academic performance in Values Education with a high rating of outstanding. Therefore, the teachers showed their best to teach their pupils the values they need to possess for their character education. This implies that post millennial learners' academic performance does not depend greatly on pupils' behavior. Pupil's academic performance in Values Education (Edukasyon sa Pagpapakatao) showed that not all pupils who

got outstanding grades have ethical values and not all pupils who got fairly satisfactory grades have unethical values.

**Table 6. Relationship between Pupils' Academic Performance in Values Education (Edukasyon sa Pagpapakatao) as to Academic Behavior and Strategies Used**

Academic Performance and .....	r	p-value	Interpretation	Decision
Academic Behavior	-0.080	0.146	Not significant	Accept Ho
Teaching Strategies Used	0.081	0.403	Not significant	Accept Ho

In addition, for the relationship between the pupils' academic performance in Values Education (Edukasyon sa Pagpapakatao) and teachers' teaching strategies denotes that teachers strategies used isn't enough to stimulate the post millennial learners to grasp and promote characterization of the competencies or the standards taught by the teachers.

Moreover, teachers of Edukasyon sa Pagpapakatao may not be using appropriate strategies that best suit specific objective or competency. The result jibes with the findings of Orong (2013) postulated that there is no significant relationship between the teachers' strategies and academic performance of the learners.

In addition, the study of Mahmood (2017) reveals that values play a vital role in any teacher-training program. The values practices used by teachers affect students understanding and characterization of such values. It was also found out that teacher's role was very important in the development of values as they used different practices to promote values in their schools.

## CONCLUSION

This study concluded that the pupils' academic performance in Edukasyon sa Pagpapakatao (EsP) does not depend on their academic behavior. Likewise, pupils' academic performance in Edukasyon sa Pagpapakatao (EsP) does not greatly depend on the teachers' teaching strategies. Further, pupils showed outstanding performance in Values Education (Edukasyon sa Pagpapakatao), however, the pupils' academic behavior does not significantly influence their academic performance in school. Thus, pupils' behavior cannot only be defined by grades or academic perfor-

mance. Indeed, different factors affect learners differently under different circumstances.

## RECOMMENDATION

In view of the foregoing conclusions, it is recommended that there should be programs or activities through the involvement of parents and teachers to build a positive relationship to foster inner transformation of the individual and to uphold truth by following ethical principles; the school administrators should have regular activities promoting the core value “Love of God” by creating multi-faith organization in school to express one’s spiritual beliefs while respecting others. Furthermore, seminars and symposia should be given to teachers that should inculcate practical strategies and personal experience through community outreach program, research and case study to promote the instruction of Values Education (Edukasyon sa Pagpapakatao) to their pupils; and parents should demonstrate among themselves to teach their children the proper way to express spiritual life and maintain ethical standards.

## REFERENCES

- Bamkim, S., (2016). *Moral education at Japanese elementary school*.
- Camp, J., (2019). *School hours: is there enough time to learn*.
- Candilas K., (2018). *21<sup>st</sup> century neophyte teachers’ lived experiences in teaching: A Phenomenal Study*.
- DepEd (2013). *DO 36, s. 2013 education vision, mission, and core values*.
- Lovat, T & Toomey, R. (2007). *Values education: A brief history to today Values Education and Quality Teaching: The double helix effect*, David Barlow Publishing.
- Mahmood, M. (2017). *Value related practices used by teacher educators at a public university, Islamabad*.
- Mary, J., (2016). *Role of parenting in inculcating values*. Vol-I issue-2 2016
- NCERT (2000). *Education for values in school: A*

*framework*. National Council of Educational Research and Training, New Delhi.

- Orong, D. (2013). *The relationship between teaching strategies and academic performance of radiologic technology students*.
- Reyes, Wilma (2019). *Approaches and strategies in teaching values education*, Philippine Normal University: National Center for Teacher Education.
- Stedje, L. B. (2014). *Nuts and bolts of character education*. Literature Review, 3, 1-6.
- Thompson, William (2002). *The effects of character education on student behavior*. Electronic Theses and Dissertations, Paper 706.
- Tomar, Sumit (2019), *Education on moral values a must for school children*.
- Zbar V., David B., & Barbara B. (2013). *Values education study*. Curriculum Corporation. Department of Science and Training Australia.

# COMPETENCE OF TEACHERS HIRED DURING CONSTANT MIGRATION IN PRIVATE SCHOOLS AND ITS IMPLICATION TO STUDENTS' ACADEMIC PERFORMANCE

EDUARDO B. WAPANIO, MAED

Co-authors: ALLAN S. TIEMPO, PhD

LEANDRO C. TORREON, PhD, JULIUS J. IGOT, EdD, LUZMINDA G. MACHETE, EdD  
and PROCESO M. CASTIL, EdD

Bohol Island State University- Candijay Campus, Cogtong, Candijay, Bohol, Philippines

## ABSTRACT

The main purpose of the study was to determine the degree of association between the students' academic performance and the level of competence of the teachers hired during constant migration. The respondents of the study were 6 school principals, 70 probationary teachers and 352 junior and senior high school students of the 6 schools of Bohol Association of Catholic Schools (BACS), Diocese of Talibon during the school year 2019-2020. Purposive sampling technique was used to determine the teacher-respondents and simple random sampling was used to identify student-respondents. The study employed a descriptive-correlational research design using modified survey-questionnaires by Student Survey Questions for teachers based on Missouri's Educator Evaluation System, 2013 and the Certification Assessment Instrument by Private Education Assistance Committee (PEAC) 2018-2019 to measure the competence of teachers. Students' academic performance was gauged by their 3rd quarter general average. Pearson Product Moment Correlation was used to test the relationship between the students' academic performance and the teachers' competence. The result of the study revealed that the correlation between the students' academic achievement and teachers' instructional competence is statistically significant. However, there is no significant correlation between the academic performance of the students and the teachers' managerial competence. Moreover, the perception of the respondents on the competence of teachers as to instructional and managerial significantly differs. The researchers concluded that teachers' instructional competence has significant positive association on the students' academic achievement. Furthermore, teachers with high level of instructional competence tend to promote outstanding academic performance of students. Based on findings, researchers recommended private schools should regularly send their teachers on trainings and seminars in order to improve teachers' competence.

*Keywords: Level, Competence, Constant Migration, Implication, and Academic Performance*

## INTRODUCTION

In any country, the position of Primary education is generally paradoxical. It is expected to play a transitional role between basic education and further higher education, as well as to play a terminal role by providing necessary manpower for the development of the country (Kaushal, 2017).

However, the migration of teachers from private to public schools is a phenomenon in the basic education system. DepEd Secretary Leonor Briones expressed concern on the continued migration of teachers – as well as students – from private to public elementary and high schools. This, she noted, leads to the growing “phenomenon” of small private schools closing down with a lack of enrollees as well as teachers

(Briones as cited by Malipot, 2018). According to Briones, this phenomenon of migration – from private to public not only of students but also of teachers. She is referring to students who transfer from private schools to public schools for numerous reasons. She also noted that many private schools close down because they continue to lose teachers – many of whom prefer to teach in public schools because of higher salaries and other benefits.

Meanwhile, the Federation of Associations of Private Schools and Administrators (FAPSA) bewailed that some of its member schools have been closing down because they are having a hard time retaining teachers who prefer to move to public schools because of higher salaries and benefits. The Philippine educational system would

bring a teacher either to a private school or to the public sector. In comparison, the salaries in SUC's and the salaries in SHS are now higher than the salaries the private HEI's pay for their professors in private universities. Thus, they need to increase tuition so they can be competitive. (De Vera as cited by Malipot, 2018). To hold their teachers, private schools have been observed to spend money, time and effort to provide newly hired teachers with in-service training to enhance knowledge, skills, attitudes, and values in the development of the learners because according to Ryan, S. V., von der Embse, N. P., Pedergast, L. L., Saeki, E., Segool, N. and Schwing, S. (2017) it is also possible that accountability policy has predicated much of the between-school movement as young teachers are more likely to move toward schools with favorable teacher incentives.

The massive and constant migration of private school teachers to the public sector is mostly experienced by small schools such as the member-schools of the Bohol Association of Catholic Schools- Diocese of Talibon. Real figures reported during the associational meeting would reveal how many teachers from BACS-Talibon are migrating to the public school system in the last four school years. To wit: SY2016-2017 : 83, SY2017-2018 : 92, SY2018-2019 : 92, SY2019-2020 : 74. Alarmed by this plight of the private schools and from this perspective, the researcher is stimulated to probe whether the constant migration of teachers has an impact on the teachers' and students' performance particularly in the BACS-Talibon member schools of the third congressional district of Bohol.

## **THEORETICAL BACKGROUND**

Much important learning by the child occurs through social interaction with a skillful tutor. This is embodied by the theory of Vygotsky (1978), Zone of Proximal Development which established that the tutor may model behaviors and/or provide verbal instructions for the child. The child seeks to understand the actions or instructions provided by the tutor (often the parent or teacher) then internalizes the information, using it to guide or regulate their own performance. In private schools, considerable number of teachers migrate to public schools every year for higher compensation which complies to the Hierarchy of Needs Theory of Maslow (1954) which states that people have a pyramid hierarchy of needs that they will satisfy from bottom to top. This constant

migration of teachers shows no negative effect on the teachers and students' performance as the Expectancy Theory of Vroom (1964) explains that a person is motivated to behave in a certain manner because he or she expects a desired result.

**Legal Bases.** The said theory of learning is legally supported by a provision of Article III Section 1 of the Code of Ethics for Professional Teachers in the Philippines which states that a teacher is a facilitator of learning and of the development of the youth; he shall, therefore, render the best service by providing an environment conducive to such learning and growth. Justifying the migration of teachers from private to public schools, Executive Order No. 201 s. 2016 Section 3 provides the modified Salary Schedule for Civilian Personnel, to be implemented in four (4) tranches. Whereas Republic Act No. 8545 Amending R.A. 6728

An Act providing Government Assistance to Students and Teachers in Private Education and appropriating Funds therefor", establishing a Fund for the purpose of subsidizing salaries of Private School Teachers, and appropriating Funds therefore provides the teachers in private schools the motivation to stay in the institution, give their best performance and consequently a students' high performance.

**Related studies.** Teaching is a noble profession. However, a lot of young people do not go into teaching because there is no "gold" in it. Yes, that is indeed true, but if your needs are simple and you are happy with what you do, then that is enough "wealth". What you get from teaching is honor and dignity in life (Boiser, 2004).

It is believed that, as teachers gain experience, the pupils/students not only learn more but they also more likely to do better on other means of success (Kini & Podolsky, 2016).

The profession of teaching is a varied one. The job of an elementary school teacher is very different from the job of a college professor. But certain aspects of teaching are the same at all levels. Teachers must plan their lessons and present them in a way that interests students and helps them understand what is being taught. And they must measure, or evaluate their student's progress (The New Book of Knowledge, 2007).

There were an estimated 191 million migrants worldwide in 2005, up from 176 million in 2000. Today, the International Organization on Migration estimates that there are 214 million migrants across the globe, an increase of about 37 percent in two decades (IOM, 2010). Projections estimate that migrants comprise 3.0 percent of the global

population. If all the migrants were to unite and found a nation, that nation would constitute the fifth most populous country in the world.

There are roughly 30 to 40 million “unauthorized” migrants worldwide, comprising around 15 to 20 percent of the world's immigrants (ILO, 2006).

In numerous countries in the developing world, public sector wages are “capped” by structural adjustment programs imposed by Multilateral Financial institutions like the IMF and World Bank (Actionaid, 2006). These same institutions, in their adherence to strict monetarist policy (keep inflation low at all costs), limit these governments’ ability to inject spending into the economy to stimulate growth and create employment.

Taken together, many governments in the developing world are unable to offer competitive wages or sufficient positions that would keep teachers at home.

There were an estimated 191 million migrants worldwide in 2005, up from 176 million in 2000. Today, the International Organization on Migration estimates that there are 214 million migrants across the globe, an increase of about 37 percent in two decades (IOM, 2010). Projections estimate that migrants comprise 3.0 percent of the global population. If all the migrants were to unite and found a nation, that nation would constitute the fifth most populous country in the world. There are roughly 30 to 40 million “unauthorized” migrants worldwide, comprising around 15 to 20 percent of the world's immigrants (ILO, 2006).

According to the ILO/UNESCO 1966 Recommendation (Article 13), ‘completion of an approved course in an appropriate teacher-preparation institution should be required of all persons entering the profession’ (UNESCO and ILO, 2008, p. 25).

In early childhood and primary education, almost half of the respondent unions (47 percent) indicated that teachers are required to have at least a teacher education certificate or diploma in order to teach at those levels. In VET, the proportion of responses between teacher education certificate and undergraduate degree were similar (nearly 34 percent). Nearly half of the unions (47 percent) reported that an undergraduate degree is a minimum qualification to teach secondary education, whereas half of the unions representing teachers in higher education reported that at least a master’s degree is required to enter the higher education sector in their countries. Very few unions reported that no requirements are necessary to enter the profession across all education sectors.

It is undisputed that education involves the transmission of the knowledge that young people need in order to participate independently and successfully in society (Kunter, M. & Voss, T., 2013).

There are many aspects that contribute to the student's academic achievement and performance. However, research findings suggest that among school-related factors, the teachers matter most. For instance, in student performance for reading and Math tests, the teacher of the subject is estimated to have two or three times more impact than the other school-related factors such as services, facilities and leadership (Manikan, 2019).

Furthermore, Selvi (2010) reveals that lifelong competencies refer to the teachers’ responsibilities for their own learning and development of lifelong learning skills for students. It means that lifelong learning includes two main abilities. The first one is related to teachers’ own lifelong learning ability and the second one is related to teachers’ responsibility to develop students’ lifelong abilities.

Professional teachers build authentic relationships with their students and students’ parents. They help the student feel valued in their own educational process and engage in meaningful conversations about things that motivate them outside the classroom (eNotes Editorial, 2016).

Thus, Biolena (2019) reports that a lot of teachers are in debt, struggles with their income and expenses, not to mention preparing for their future all the while sacrificing themselves to their students.

Researchers and policymakers often assume that teacher turnover harms student achievement, though recent studies suggest this may not be the case (Ronfeldt, Loeb & Wyckoff, 2013).

Turnover can be positive when it improves the quality of the teacher workforce. Strategic retention of effective teachers combined with the departure of ineffective teachers has the potential to maximize the benefits of turnover and improve workforce quality. However, hard-to-staff schools may also require incentives to both retain their best teachers and attract effective candidates to fill the slots vacated by less effective teachers. While value-added research suggests that less effective teachers are more likely to depart schools, other research using teacher licensure scores as a proxy for teacher quality suggests that more effective teachers with more experience are more likely to turn over (Donley, J., Detrich, R., Keyworth, R., & States, J., 2019)

Abelson and Baysinger as cited by Ronfeldt et al. (2013) posit that the organizational management literature has demonstrated that some turnover may in fact be beneficial. Turnover, for example, can result in better person-job matches and infusion of new ideas into organizations. To this point, Jackson as cited by Ronfeldt et al. (2013), demonstrates that poor person-job matches predict migration and that teachers tend to be more productive in their new schools. Moreover, turnover can have institutional benefits if the less effective employees leave.

However, in their research, Donley, J. et al. (2019) pointed it out that turnover is also detrimental to student achievement and the adverse consequences may extend even to students of teachers who remain in schools. The impact of turnover may also include disruptions to school operations and teacher collegiality, the loss of institutional knowledge, and reluctance by teachers to engage in teacher leadership activities, all of which can serve as barriers to school improvement.

Unsurprisingly, according to Grissom and Bartanen (2018), less effective teachers are more likely to turn over. For each of three measures of teacher effectiveness (Average Observation Score, Growth Score and Individual Growth Score), there is a (generally monotonic) negative relationship between effectiveness and turnover. However, the difference in turnover rates between teachers in the highest and lowest effectiveness categories is much larger for observation scores. Teachers whose average observation scores are 1.00 to 2.75 are more than 3 times more likely to turnover than teachers scoring 4.50 to 5.00. By Comparison, for growth, the turnover rate of level 1 teachers is only 24% greater than level 5 teachers. In relation, teachers who can ensure quality teaching by means of certain 'procedures/recipes' are considered effective. (Liakopoulou, 2011).

Kunter, M., et al. (2013) regard instruction as a learning opportunity. In other words, they assume that teachers are able to offer students opportunities to learn, but that the effective utilization of these opportunities depends on the students themselves and is determined by their cognitive, motivational and social characteristics

In terms of competencies, teachers are not required to possess managerial competence, but as they are nominated as school principals, they must acquire this competence. ( Permendinas number 13 the year 2007 as cited by Juwita and Saefudin (2017).

NCATE Standards as cited by Manikan (2019), commented that a teacher may be is ineffective but if her students are motivated to learn the content, they will do so in spite of you. Students are the ultimate deciders when it comes to whether or not they learn.

This plight of the private school teachers clearly affects their decision because the Hierarchy of Needs Theory (Maslow, 1954) states that people have an inborn desire to be self-actualized, that is, to be all they can be. In order to achieve these ultimate goals, however, a number of more basic needs must be met such as the need for food, safety, love and self-esteem. Maslow felt that people are motivated to fulfill basic needs before moving on to other more advanced needs.

Thus, migration of teachers from private schools to the public sector happens every year because "a person is motivated to behave in a certain manner because he or she expects the desired result," a much higher salary in this case and "it is assumed that behavior results from conscious choices among alternatives whose purpose is to maximize pleasure and to minimize pain" posits the Expectancy Theory (Vroom, 1964; Lawler, 1981). Using this theory, Viscardi (2014) postulates that if a person is motivated to behave in a certain manner because he or she expects the desired result, then the pay-for-performance systems for teachers is a viable option to improve overall student achievement as well as entice more professional and capable candidates to become teachers.

With due consideration, all the above-cited information highlight the significance of this study.

## OBJECTIVES

The main purpose of this study was to determine the level of competence of the teachers hired during constant migration and its implication on the students' academic performance.

Specifically, this study sought to answer the following questions:

1. What is the profile of teacher-respondents in terms of:
  - 1.1 age;
  - 1.2 sex;
  - 1.3 civil status;
  - 1.4 educational attainment;
  - 1.5 years in service;
  - 1.6 monthly salary; and
  - 1.7 relevant trainings and seminars attended?



2. What is the profile of the student-respondents in terms of:
  - 2.1 grade level;
  - 2.2 age;
  - 2.3 sex; and
  - 2.4 academic performance?
3. What is the perception of the respondents on the level of competence of teachers hired during constant migration in private schools as to:
  - 3.1 managerial competence; and
  - 3.2 instructional competence?
4. Is there a significant correlation between the students' academic performance and the level of competence of teachers hired during the constant migration in private schools?
5. Is there a significant difference between the perception of the respondents on the teachers' level of competence as to:
  - 5.1 managerial competence; and
  - 5.2 instructional competence?
6. Based on the findings, what plan of action may be proposed?

## RESEARCH METHODOLOGY

To achieve the purpose of this research, the researchers employed a descriptive-correlational research design utilizing modified survey questionnaires to measure the competence of the private school teachers. Documentary analysis was used to determine the students' academic performance. Purposive sampling technique was used to determine the teacher-respondents and simple random sampling was used to identify student-respondents.

The study was conducted in the selected private secondary schools of the Bohol Association of Catholic Schools (BACS), Diocese of Talibon, Bohol. This includes the six (6) secondary private schools in the municipalities of Anda, Duero, Candijay, Carmen, Mabini, and Pilar. There were 428 respondents of the study comprising 6 private school principals, 70 teachers and 352 students from the different schools namely: Holy Infant Academy, Immaculate Academy, St. Anthony's Academy, St. Joseph Academy, Santa Monica Institute and, Virgin Del Pilar Academy. Table below is shown for the distribution of the respondents.

The researchers used two (2) instruments namely: Student Survey Questions for teachers based from Missouri's Educator Evaluation System, 2013 and the Certification Assessment In-

strument by Private Education Assistance Committee (PEAC) 2018-2019 to measure the competence of the teachers' hired during the constant migration in private schools. Modified survey-questionnaire was subjected to reliability and validity tests. The reliability coefficient obtained was 0.806 thus, the instrument is highly reliable.

The qualitative scales used to measure the Teachers' Competence:

Legend

Rating Scale	Description	Interpretation	Weighted Mean (WM)
3.25 - 4.00	Strongly Agree	Very High (VH)	
2.50 - 3.24	Agree	High (H)	
1.75 - 2.49	Disagree	Moderate (M)	
1.00 - 1.74	Strongly Disagree	Low (L)	

### **On questionnaire for the teacher's profile.**

An instrument used to gather the personal information covers the Age, Sex, Civil Status, Educational Attainment, Years in Service, Monthly Salary, and Related Trainings and Seminars attended.

### **On questionnaire for the students' profile.**

An instrument used to gather the personal information of the students covers Grade Level, Age, Sex, and Academic Performance.

The collected data pertaining to the respondents' responses on the level of competence in management and instruction as well as the academic performance were gathered. They were then analyzed through the use of statistical methods utilizing the SPSS software and interpreted in accordance with the identified problems of the study.

## FINDINGS

Table 1 details the profile of the teacher-respondents in terms of age, sex, civil status, educational attainment, years in service, monthly salary and trainings and seminars attended related to classroom management and instructional strategies.

As to age, it is evident that 21 to 24 years old ranked 1st with the highest frequency of 55 or (78.57%) while 31-35 years old and 36-60 years old have the lowest frequency of 3 or (4.29 %) of the total number of respondents. The data reveals that the majority of the teacher-respondents in BACS-Talibon are very young and that room for

improvement in different aspects is very much wide and attainable.

With regards to sex, the female respondents' frequency is much higher than that of the male respondents at 49 or (70.00%).

The same table shows that 63 or (90%) of the teacher-respondents are single which would suggest that most of them can spend more time for their job than performing family obligations.

On the educational attainment, respondents with only Baccalaureate Degree get the highest frequency at 59 or (84.29%) while the respondents with Masteral Units are 9 or (15.71%). It is notable that none of the respondents belongs to MA CAR nor MA Graduate. Encouraging them to proceed with graduate studies may help them develop more competence.

For years in service, 34 or (48.57%) of the teacher-respondents are still on their first year, 21 or (30.00%) are sophomores, while 12 or (17.14%) are already in their third year. Only 3 or (4.29%) of them are in the fourth year or more in their employment. This implies that most of the teacher-respondents are neophyte in the teaching profession.

**Table 1. Profile of the Teacher-Respondents**

	Frequency	Percentage (%)	Rank
<b>1.1. Age</b>			
21-24 years old	55	78.57	1
25-30 years old	9	12.85	2
31-35 years old	3	4.29	3.5
36-60 years old	3	4.29	3.5
<b>Total</b>	<b>70</b>	<b>100%</b>	
<b>1.2. Sex</b>			
Male	21	30	2
Female	49	70	1
<b>Total</b>	<b>70</b>	<b>100%</b>	
<b>1.3. Civil Status</b>			
Single	63	90	1
Married	7	10	2
Widow	0	0	3.5
Widower	0	0	3.5
<b>Total</b>	<b>70</b>	<b>100%</b>	
<b>1.4. Educational Attainment</b>			
Baccalaureate Degree	59	84.29	1
With MA Units	11	15.71	2
MA CAR	0	0	3.5
MA Graduate	0	0	3.5
<b>Total</b>	<b>70</b>	<b>100%</b>	
<b>1.5. Years in Service</b>			
1 year	34	48.57	1
2 years	21	30	2
3 years	12	17.14	3
4 years – above	3	4.29	4
<b>Total</b>	<b>70</b>	<b>100%</b>	
<b>1.6. Monthly Salary</b>			
Php 7,000.00 - Php9,999.00	69	98.57	1
Php10,000.00 – Php15,999.00	1	1.43	2
Php16,000.00 – Php20,999.00	0	0	3.5
Php21,000.00 - Above	0	0	3.5
<b>Total</b>	<b>70</b>	<b>100%</b>	

<b>1.7. Relevant Trainings/ Seminars Attended</b>			
2017 DepEd-PEAC Summer INSET	12	17.14	5
2018 DepEd-PEAC Summer INSET	27	38.57	3
2019 DepEd-PEAC Summer INSET	33	47.14	2
Improving SHS Teachers' Pedagogical Content Knowledge	2	2.85	6.5
Millennials, Gen Z and 21 <sup>st</sup> Century Skills Seminar	13	18.57	4
Curriculum Mapping Seminar	49	70	1
None	2	2.85	6.5

In terms of monthly salary, the table reveals that compensation of the teacher-respondents is low that 69 or (98.57%) of them receive only from Php7,000.00 to Php9,999.00 a month while only 1 or (1.43%) has a salary per month ranging from Php10,000.00 to Php15,999.00 and nobody receives more than this. This could be a big factor of teachers migrating to the public schools.

It is noticeable in the last part of the table that there were 49 or (70.00 %) of the teacher-respondents who attended the Curriculum Mapping seminar. Yearly, the private schools send teachers to DepEd-PEAC INSET before the classes begin for professional development on contents and strategies. The data shows that only two (2) respondents have not attended a seminar.

The data revealed that majority of the teacher-respondents are at the young age and are still single in civil status. Since they are yet in the beginning stage of their teaching profession, they are classified as probationary teachers that provides them a compensation which is much lower than the salary of their counterparts in the public school system. It is also indicated in the data that more females are employed as teachers than the males. Basically, all of the respondents have Bachelor's Degree but only a few of them have Masteral units and none has completed a Master's Degree. The data also showed that despite being new in the profession, not all of the respondents are sent to attend in every seminar and trainings available for them.

It is believed that, as teachers gain experienced, the pupils/students not only learn more but they also more likely to do better on other means of success (Kini & Podolsky, 2016).

Here in table 2, presented is the profile of student-respondents in terms of grade level, age, sex, and academic performance.

The data show that respondents in Grade 10 have the highest frequency at 104 or (29.54%)

while those in grade 12 have the lowest frequency at 21 or (5.97%).

The other grade levels are distributed accordingly with their respective frequencies as: grade 8 at 84 or (23.86%), grade 9 has 64 or (18.18%) while grade 11 at 47 or (13.35%) and grade 7 at 32 or (9.09%). The data reveal that the student-respondents in the grade level with highest frequency have already spent four years in the identified schools and must have already been familiar with the teacher-respondents.

As to the age of the respondents, 15 years old has the highest frequency at 88 or (25.10%) followed by 16 years old at 75 or (21.31%) and 14 years old at 73 or (20.74%). While 19 years old is the lowest at 5 or (1.42%), 12 years old, 13 years old, 17 years old and 18 years old are at the frequency of 16, 36, 33 and 26 respectively. This implies that students-respondents are already in their exact age as they join formal education.

In terms of the sex, female-respondents outnumbered the male-respondents at 226 or (64.20%) to 126 or (35.80%).

The academic performance of the respondents manifests that at the highest frequency of 234 or (66.48%) they are at the outstanding level whose general weighted average ranges from 90.00-100.00. Those who are at very satisfactory level, average grade ranges from 85.00 to 89.99, come second at the frequency of 90 or (25.57%). Twenty four (24) or (6.81%) of them rank 3rd at satisfactory level whose grade ranges from 80.00 to 84.99. While 4 or (1.13%) of the respondents rank 4th at satisfactory level and nobody gets the general weighted average below 75 or did not meet expectation level.

The data show that the student-respondents who answered the survey were coming from grades 7 to 12 and the level with the most number of participants is grade 10.

**Table 2. Profile of the Student-Respondents**

	Frequency	Percentage (%)	Rank
<b>I.1 Grade Level</b>			
Grade 7	32	09.09	5
Grade 8	84	23.86	2
Grade 9	64	18.18	3
Grade 10	104	29.54	1
Grade 11	47	13.35	4
Grade 12	21	05.97	6
<b>Total</b>	<b>352</b>	<b>100%</b>	
<b>I.2 Age</b>			
12 years old	16	04.54	7
13 years old	36	10.23	4
14 years old	73	20.74	3
15 years old	88	25.10	1
16 years old	75	21.31	2
17 years old	33	09.38	5

18 years old	26	07.38	6
19 years old	5	01.42	8
<b>Total</b>	<b>352</b>	<b>100%</b>	
<b>I.3 Sex</b>			
Male	126	35.80	2
Female	226	64.20	1
<b>Total</b>	<b>352</b>	<b>100%</b>	
<b>I.4 Academic Performance</b>			
<b>Descriptor</b>	<b>Grading Scale</b>		
Outstanding	90.00 - 100.00	234	66.48
Very Satisfactory	85.00 - 89.99	90	25.57
Satisfactory	80.00 - 84.99	24	06.81
Fairly Satisfactory	75.00 - 79.99	4	01.13
Did Not Meet Expectation	Below 75	0	0
<b>Total</b>		<b>352</b>	<b>100%</b>

Also disclosed in the data, that of the students whose ages ranged from 12 to 19 years old, those who are at the age of 15 have the most number of participants and the female respondents outnumbered the males. And in terms of the academic performance of the respondents, majority of them have outstanding weighted average with the grade ranges from 90% to 100% and nobody got the average grade below 75% or did not meet expectation.

The data revealed that majority of the respondents have the general weighted average qualified to be in the outstanding level despite the fact that they were selected randomly across the grade levels from grade 7 to grade 12.

Table 3 reveals the perception of the respondents on the level of competence of the teachers hired during the constant migration in private schools as to managerial and instructional competence. Results depicted that the teachers' managerial competence and instructional competence were rated "Very High" with a weighted mean of 3.34 and 3.27, respectively.

**Table 3. Perception of Respondents on Level of Competence of Teachers Hired During the Constant Migration in Private Schools**

Statement	WM	VI	Rank
<b>3.1. Managerial Competence</b>			
3.1.1 Students feeling cared in the classroom.	3.45	SA	1
3.1.2 Managing student's behavior to enable learning.	3.32	SA	4
3.1.3 Providing support and scaffolding (step by step learning).	3.34	SA	3
3.1.4 Letting students experience a challenging work environment.	3.37	SA	2
3.1.5 Investing students in classroom learning.	3.29	SA	5
3.1.6 Giving students descriptive feedback.	3.27	SA	6
<b>Average Weighted Mean</b>	<b>3.34</b>	<b>Strongly Agree (Very High)</b>	

<b>3.2. Instructional Competence</b>			
3.2.1 Teachers' Actions	3.30	SA	1
3.2.2 Student Learning Actions	3.24	A	2
<b>Average Weighted Mean</b>	<b>3.27</b>	<b>Strongly Agree (Very High)</b>	
<b>Composite Mean</b>	<b>3.31</b>	<b>Strongly Agree (Very High)</b>	

Moreover, the composite mean of 3.31 describes that the overall level of competence of teachers hired during the constant migration in private school is very high. Professional teachers build authentic relationships with their students. They help student feel valued in their own educational process and engage in meaningful conversations about things that motivate them outside the classroom (eNotes Editorial, 2016).

**Table 4. Correlation Between the Students' Academic Performance and Competence of Teachers Hired During the Constant Migration in Private Schools**

Students' Academic Performance and...	r	p-value	Interpretation	Decision
Managerial Competence	0.139	0.252	Not Significant	Failed to Reject H <sub>0</sub>
Instructional Competence	0.244	0.041	Significant	Reject H <sub>0</sub>
Overall Teachers' Performance	0.207	0.086	Not Significant	Failed to Reject H <sub>0</sub>

*\*Correlation is significant at 0.05 level (2-tailed)*

Table 4 shows the test of correlation between the students' academic performance and the level of competence of teachers hired during the constant migration in private schools as to managerial and instructional competence. The result revealed that there is sufficient evidence of a significant correlation between the students' academic performance and teachers' competence as to instructional,  $r(68) = 0.244, p = .041$ , thus reject the null hypothesis. This denotes that teachers' competence greatly associated with the academic performance of the students. Teachers with high level of instructional competence, most likely, will produce students with high academic performance because according to Vygotsky (1978) as much important learning by the child occurs through social interaction with a skillful tutor.

However, there is no significant correlation between the students' academic performance and the level of managerial competence of teachers hired during the constant migration in private

schools with  $r(68) = 0.139, p = 0.252$ . This infers that though in some degree, the managerial skill of a teacher affects the academic performance of the students, but it is not necessary. A student could still perform high academically even with a teacher of low managerial ability because according to the findings of Kunter, M., et. al. (2013) that classroom management did not statistically, significantly predict achievement anxiety. It is also affirmed by the Permendinas member 13 year 2007 as cited by Juwita and Saefudin (2017) that teachers are not required to possess managerial competence, but as they are nominated as school principals they must acquire this competence

Likewise, there is no significant relationship between the students' academic performance and the overall teachers' level of competence,  $r(68) = 0.207, p = 0.086$ . This deduces that teachers' total performance is not a guarantee on how the students perform academically because you may be an ineffective teacher but if your students are motivated to learn the content, they will do so in spite of you. Students are the ultimate deciders when it comes to whether or not they learn according to the NCATE Standards as cited by Manikan (2019).

**Table 5. Difference Between the Respondents' Perception on the Teachers' Performance**

Teachers' Performance	F	p-value	Interpretation	Decision
Managerial Competence	76.34	< .001	Significant	Reject H <sub>0</sub>
Instructional Competence	47.89	< .001	Significant	Reject H <sub>0</sub>

*\*Difference is significant at 0.05 level (2-tailed)*

Table 5 displays the test of difference between the respondents' perception on teachers' performance in terms of managerial and instructional. The result disclosed that there is a sufficient evidence of a significant difference between the respondents' perception on the teachers' performance as to managerial,  $F(2, 207) = 76.34, p < .001$ , and instructional,  $F(2, 207) = 47.89, p < .001$ , thus reject the null hypothesis. The data mean that the respondents have different perceptions on the performance of the teachers. Despite the fact that they shared the same instrument in the survey yet the results show that each group of respondents have different perspective on how the teachers' performance affects each of them.

Furthermore, the researcher use scheffe test to explore difference between multiple group means.

### Multiple Comparison

Variable		p-value	Interpretation	Decision
<b>Managerial Competence</b>				
Principals	Teachers	< .001	Significant	Reject Ho
	Students	< .001	Significant	Reject Ho
<b>Instructional Competence</b>				
Principals	Teachers	< .001	Significant	Reject Ho
	Students	< .001	Significant	Reject Ho
Teachers		< .001	Significant	Reject Ho

The result exposed that there is a sufficient evidence of a significant difference between the individual perception of the principals, teachers and students on the teachers' performance as to managerial and instructional with  $p < .001$ , thus reject the null hypothesis. This deduces that the three important players namely, the principals, teachers and students in the delivery of the curriculum do not have a common understanding on how the teachers are to be evaluated in terms of their performance as to managerial and instructional. Though they used the same instrument in the evaluation, they still differed in their interpretation of the different items. This further shows that the quality of the delivery of the curriculum depends on how it affects the individual because according to Berliner (2005) & Hattie (2009) as cited by Kunter, M. et al (2013) that one approach to evaluate the quality of instruction is to measure the effects of specific methods or strategies. This is one aspect that future researchers may consider in their study.

### CONCLUSIONS

Founded on the foregoing findings, the following conclusions were formulated:

1. The level of instructional competence of the teachers hired during the constant migration in private schools has a significant positive association on the students' academic achievement.
2. Teachers with high level of instructional competence tend to promote outstanding academic performance of students. This indicates further that the teachers' level of competence have high implications on students' academic progress.

### RECOMMENDATIONS

Based on the findings and conclusions of this research, the following recommendations were drawn:

1. Individual schools in BACS-Talibon should regularly send the teachers to trainings and seminars for the enhancement of their competencies be it in an in-house in-service training or externally organized seminars and trainings.
2. The trainings and seminars should focus more on enhancing the instructional competence of teachers.
3. Teachers should be encouraged to pursue graduate studies with equitable financial assistance from the school.
4. Private schools should lobby to the government for the increase of teachers salary subsidy.
5. Future researchers in the field of education may use the findings as basis for future research or conduct related-studies to improve teachers' level of competence in terms of instructional.

### REFERENCES

- BACS-Talibon Administrators' Meeting (School Year 2019-2020)
- Biolena, R.. (2019). *The centrality of educators in financial literacy*. CEAP Bulletin. April to June, 2019 issue. p. 17
- Boiser, D. C..(2004) *An experience to share*. Teaching made easy: Strategies and styles. V. Phoenix publishing house inc. ISBN 971-06-2468-7
- Code of Ethics for professional teachers in the Philippines. Article III section 1
- Donley, J., Detrich, R., Keyworth, R., & State, J. (2019) *Teacher turnover impact*. Oakland CA: The wing institute. <https://www.winginstitute.org/teacher-retention-turnover>
- eNotes Editorial (2016). *What does it mean to be a professional teacher?*<https://www.enotes.com/homework-help/what-mean-professional-teacher-657625>. Accessed: October 27, 2019.

- Executive Order No. 201 s. 2016 section 3. *First tranche of salary standardization law*.
- Grissom, J. A., Bartanen, B. (2018). *Strategic retention: Principal effectiveness and teacher turnover in multiple-measure teacher evaluation system*. American educational research journal. p. 27-28. <https://doi.org/10.3102/0002831218797931>. Accessed: October 28, 2019
- Juwita, R., Saefudin, A. (2017). *The initial managerial competence of teachers nominated as school principal*. International conference on teacher training and education 2017. <https://www.atlantis-press.com/proceedings/iccte-17/25885799>. Accessed: April 27, 2020.
- Kausal A. (2017). *Affordable private schools in South Africa*. Johannesburg: CDE Insight.
- Kini and Podolsky, (2016). *Does Teaching Experience Increase Teacher Effectiveness*. <https://learningpolicyinstitute.org/product/does-teaching-experience-increase-teacher-effectiveness-review-research>.
- Kunter, M., Voss, T. (2013). *The model of instructional quality in COACTIV: A multicriteria analysis*. Institute of Psychology, Goethi University Frankfurt, Germany. [https://link.springer.com/chapter/10.1007/978-1-4614-5149-5\\_6](https://link.springer.com/chapter/10.1007/978-1-4614-5149-5_6). Accessed: May 7, 2020
- Liakopoulou, M. (2011). *Teachers' pedagogical competence as a prerequisite for entering the profession*. *European journal of education*. Vol. 46 no. 4, 2011 <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1465-3435-2011.01495.x> Accessed: April 27, 2020.
- Llego, M. A. (2019). *Public school teachers salary in the Philippines*. <https://www.teacher.com/public-school-teachers-salary>.
- Malipot, M. H. (2018). *Teacher migration from private to public schools is a problem*. <https://news.mb.com.ph/2018/06/16/teacher-migration-from-private-to-public-schools-is-a-problem/>.
- Maslow, A. (1954). *Hierarchy of needs*. <https://www.verywellmind.com/what-is-maslows-hierarchy-of-needs>. Accessed: October 28, 2019
- Meador, D. (2019). *What is the difference between teaching public vs. private schools*. <https://www.teachaway.com> Republic Act No. 8545 amending R.A. 6728.
- Ronfeldt, M., Loeb, S., Wyckcoff, J. (2013). *How teacher turnover harms student achievement*. <http://aerj.aerg.net>. Accessed: Oct. 2, 2019.
- Ryan, S. V., von der Embse, N. P., Pedergast, L. L., Saeki, E., Segool, N., Schwing, S. (2017). *Leaving the teaching profession: The role of teacher stress and educational accountability policies on turnover intent*. *Teaching and teaching education*. [www.elsevier.com/locate/tate](http://www.elsevier.com/locate/tate). Accessed: May 7, 2020.
- Selvi, K. (2010). *Teachers' competencies*. Faculty of education, Anadolu University, 2647 Eskisehir, Turkey. <https://www.pdcnet.org/cultura/content/cultura20100007000101670175> Accessed: April 27, 2020
- Tabora, J. (2018). *Private and public educational institution heads meet for complementarity in quality education*. CEAP Bulletin. September, 2018 issue. p. 12.
- The New Book of Knowledge (2007). *Teachers and teaching*. Volume T. p. 37.
- Viscarde, D. (2014). *The teacher pay for performance phenomenon*. Seton hall dissertations and theses (ETDs). 2012 <https://scholarship.shu.edu/dissertations/2012>. Accessed: May 6, 2020
- Vroom, V. (1964), Lawler (1981). *Expectancy theory*.
- Vygotsky, L. S. (1978). *Zone of Proximal development theory*. Cambridge, MA: Harvard University Press.
- Sinyolo, D. (2013). *A strategy for managing teacher migration in Southern Africa: Principles, guidelines and policy considerations*. Saarbrucken: Scholar's Press.



# 21ST CENTURY SKILLS AND PRACTICES OF TEACHERS IN RELATION TO TEACHING EFFICIENCY

JAMAICA MAE G. GULAY, LPT

Co-authors: ALLAN S. TIEMPO, PhD

LEANDRO C. TORREON, PhD, JULIUS J. IGOT, EdD, and PROCESO M. CASTIL, EdD

Bohol Island State University- Candijay Campus, Cogtong, Candijay, Bohol, Philippines

## ABSTRACT

The main thrust of the study was to determine the level of 21st century skills of teachers' teaching practices in relation to teaching efficiency among the public elementary school teachers of Guindulman District during the school year 2019-2020. This study utilized descriptive survey with correlational research designs using descriptive survey questionnaire distributed to overall 289 respondents. It was found out that teacher-respondents always practice instructional planning, instructional delivery, classroom management, teacher learner interaction, assessment, professional responsibilities and professional relationships; efficient in planning and preparation, classroom environment, instruction, professional responsibilities and use of learners assessment. There is a significant relationship between teachers' teaching efficacy and overall level of 21st century skills. The researcher concluded that teachers possess learning and innovation skills, information, media and technology skills, and life and career skills. Teachers' 21st century skills and teaching practices were significantly related to teaching efficiency. The study recommends that teachers are encouraged to continue to pursue educational advancement for a high level of teaching efficiency and level of 21st century skills. Teachers are encouraged to attend trainings and seminars for their professional growth thus promote teaching efficiency. Teachers are encouraged to adapt changes through implementing new programs with regards to 21st Century skills and teaching efficiency. The school administrators should initiate and implement programs and practices which could promote the skills needed in the 21st century and teaching efficiency. Future researchers may conduct similar study and make this study as reference to come up with more meaningful result of related study.

*Keywords: Skills, 21st Century, Practices, Efficiency, Teachers*

## INTRODUCTION

In the era of globalization, educational systems are transforming and changing in the way teaching and learning activities occur in schools. In the process, schools are required to prepare students to be effective, responsible and globally competitive individuals. The 21st century characterizes themes such as global awareness, multiple literacies, economic, cultural and environmental literacy (Uche, Kaegon & Okata, 2016).

With the multiple literacy requirements of the 21st-century environment comes the demand for competencies and for the acquisition of 21st-century skills needed for survival and be competitive with the ability to function effectively across local and international boundaries (Boholano, 2017). With globalization, it has become necessary that learners acquire a high standard of education, such that will make learners cope and adapt to the changing world. In Singapore, 21st

Century Competencies (21CC) policy focused on enabling students to develop creative and critical thinking skills and their strategies included in the explicit teaching of creative and critical thinking skills (Tan, Koh, Chan, Onishi & Hung, 2017). Here in the Philippines, there is a new paradigm of the Department of Education- the implementation of the K-12 Basic Education Program. This curriculum reform has developed a framework which aims for the holistic development of the learners and opened a way to the mandated 21st Century Skills. These include teachers' level of competencies in learning and innovation, technology and career skills (Pa-alisbo, 2017). Learning and Innovation, Information Media and Technology and Life and Career Skills are main domains of the 21st century skills practices of teachers. The 21st century skills are knowledge, skills, attitudes and competencies necessarily needed to be globally competitive.

Teachers occupy a very strategic role in the achievement of educational objectives. The level of efficiency of the teachers and the ability of the educational systems to achieve its set goals is a measure of how productive the teachers performing their roles (Uche, et.al, 2016). A teacher can be efficient when engaging time on task, well-prepared lesson plan, instructional materials and everything is organized. Efficiency means doing things right to produce positive outcome of the teaching-learning process. Teaching efficiency covered important teaching dimensions of planning and preparation, classroom environment, instruction, professional responsibilities and the use of student assessment. Teaching practices cover instructional competencies which include indicators such as instructional planning and delivery, classroom management, teacher-learner interaction, subject content, evaluation and professional responsibilities and relationships.

Teachers must be updated, prepared and mastered how to move in the 21st century workforce than limiting ourselves learning the traditional approaches of the teaching and learning process. With these prevailing situations, the researcher was motivated to undertake this study primarily to delve into determining the 21st-century skills of teachers, teaching practices, and teaching efficiency among the public in Guindulman District, school year 2019-2020 with the end view of proposing a professional development program.

## THEORETICAL BACKGROUND

Learning is an active process wherein learners are active in exploring and constructing their knowledge. According to Piaget's (1936) Theory of Cognitivism focuses on mental processes, including how people think, learn and solve problems. This allows pupils to explore the material and develop a deeper understanding, which reflects on the 21st-century skill that a student should possess, develops higher-order thinking skills. In another theory, Social Learning by Bandura's (1977) emphasizes collaborative learning and group work and there are opportunities to observe experts in action. Learning takes place through observation and sensorial experiences. Incorporating social theory into classrooms, teachers can develop an encouraging classroom environment, which inspires students to engage lessons and enjoy learning experience. Also, Gardner's (1983) Theory of Multiple Intelligences draws students back into learning. Using the dif-

ferent bits of intelligence to a concept allows each of diverse learners a chance to succeed in learning. It enables students to improve their strengths and purposively target and develop weaknesses. Gardner claims that all human beings have multiple intelligences. These can be nurtured and strengthened or ignored and weakened. Teachers should begin to understand learning styles to be more effective in teaching.

**Legal Bases.** This study is anchored on Section 16, (2) of Batas Pambansa Blg. 232 also known as Education Act 1982 which provides that the teacher shall be accountable for efficient and effective attainment of specified learning objectives in pursuance of national development goals. This study is also supported by National Competency-Based Teachers Standards (NCBTS) Domain 1, Social Regard for Learning focuses on the idea that teachers serve as positive and powerful role models of the value in the pursuit of different efforts to learn and the Article IV, Section 2 of Code of Ethics for Professional Teachers states that every teacher shall uphold the highest possible standards of quality education, shall make the best preparation for the career of teaching, and shall be at his best times in the practice of his profession. In support of DepEd Order No. 021, series 2019, Policy and Guidelines on the K to 12 Basic Education Program, seeks to provide Filipino learners with the necessary skills and competence to prepare them to take on the challenges of the 21st century.

**Related Studies.** The educational system needs to provide experiences relevant to the 21st century world, which means the introduction of new learning domains and competencies (Care, Kim, Vista & Anderson, 2018). The 21st-century education addresses "what students need to learn how to be successful in school, work, family and community life". Thus, it combines a focus on 21st-century learner outcomes – to have the expertise, content knowledge and literacies. These will help learners master the abilities required in the 21st century (Egnor, 2013). Teachers are expected to reshape and be guided on what to teach as well as techniques enhancing the quality of education for the 21st century. Powerful learning of this nature demands well-prepared teachers who draw on advances in different fields (Berry, 2010). Highly effective teachers in our country are more needed. In addition, pupils need educators to set a wide vision, plan and execute 21st-century skills to ensure quality learning and a catalyst of changing learners' life. Chalkiadaki, (2018) noted that educators should demonstrate

competencies like effective classroom management, wherein a range of strategies should be employed to promote positive relationships, cooperation and purposeful learning. Another is effective teaching practices, representing different viewpoints, theories and ways of knowing in the teaching of concepts. Effective assessment strategies should be developed which involve learners in self-assessment activities to help them become aware of their strengths and weaknesses.

According to Soland, Hamilton and Stecher (2013), to ensure a full range of competencies, there are broad categories vital in the 21st century. These are cognitive competencies, which involve academic mastery, critical thinking and creativity. With Vail (2010), the 21st century is considered as the information age, which requires skills essential for success like economic technological information which transform the way people live. 21st century needs to know how to provide technological supported learning opportunities for learners and know-how technology can support learning. According to the study of Boholano (2017), to effectively engage and teach learners, schools must be within the prerequisite of ICT resources and curricula must design to promote a collaborative learner-centered environment to which learners participate, respond and generate information. Upon using interactive technology, learners can easily acquire information about topics discussed since there are learning resources that can be accessed for better understanding and clearer explanations. Teachers are encouraged to incorporate and integrate different forms of media with instructions. In the study of Andrin, G. (2011) as cited by Bendanillo, A., Tiempo, A., Torreon, L., and Olandria, A., (2019), professional practices are significantly related to the level of teaching efficiency. Teachers who are engaged professional practices very satisfactorily promote teaching efficiency. In addition, teaching practices such as instructional planning, instructional delivery, classroom management, teacher learner interaction, assessment, professional responsibilities and professional relationships could also improve teaching efficiency. According to the study of Uche et. al ( 2016), the 21st-century classroom demands teachers to play important roles to achieve quality learning. This demands to train learners into being productive members of the society where they find themselves globally competitive. The 21st Century Skills is a global framework and one of the core elements of the K-12 Basic Education Program that develop the students holistically. These include teachers' level of

competencies in - Learning and Innovation Skills, Information, Media and Technology Skills, and Life and Career Skills. Such competencies will take a role in attaining a certain level of standards (Pa-alisbo, 2017). Educators should exert more effort to upgrade their teaching performance through technology-oriented strategies achieving the demand of the 21st-century world.

In the study of Nessipbayeva (2015), "Competencies of the Modern Teacher", schools today focus primarily on "life skills". The aim is to teach students to obtain knowledge by themselves and work in ways that enable them to come up with new ideas. Learners should listen to one another and choose the right communication strategy to build a harmonious relationship with one another, work collaboratively and sensitively in a team, and respecting one's opinions, ideas and beliefs. The behaviors, knowledge, skills, dispositions, and levels of proficiency novices must demonstrate before being allowed to begin teaching is a matter for standard-setting that can be gauged in relation to the full set of competencies claimed to underlie the effective practice. How competence develops in teaching is an empirical question that requires further study. The most prevalent approach uses the research on expert-novice comparisons as the basis for insight, proposing the adaptive expert as the long-term goal (Berliner, 1992, 2001; Ericsson, 1996, 2002, 2007, 2008; Hatano & Inagaki, 1986; Snow, Griffin, & Burns, 2005). The 21st-century teacher competencies based on UNESCO 21st Century Approach to Education Reform are technology literacy which prepares learners, citizens and workforce to take up new technologies and improve economic productivity. Knowledge deepening, which expected teachers to increase the ability of the students to add value to society by applying knowledge to solve complex problems. Knowledge creation, with the goal to increase productivity by creating students engage in the benefit of knowledge innovation and creation. Students will be able to design ICT-based knowledge communities (Lai & Viering, 2012). Therefore the 21st-century teachers need to be prepared to provide technology-supported learning opportunities for their students' learning.

## OBJECTIVES

The main thrust of the study was to determine the level of 21st century skills, teaching practices and teaching efficiency of the public elementary

school teachers and the significant relationship among the variables.

Specifically, this study aimed to answer the following questions:

1. What is the profile of the teacher-respondents with reference to their:
  - 1.1 age;
  - 1.2 sex;
  - 1.3 highest educational attainment;
  - 1.4 length of service;
  - 1.5 grade level handled, and
  - 1.6 relevant trainings/seminars attended?
2. What is the assessment of the respondents on the teachers' level of 21st century skills as to:
  - 2.1 Learning and Innovation;
  - 2.2 Information and Innovation; and
  - 2.3 Life and Career Skills?
3. What is the assessment of the respondents on the teachers' level of teaching practices in terms of:
  - 3.1 Instructional Planning;
  - 3.2 Instructional Delivery;
  - 3.3 Classroom Management;
  - 3.4 Teacher-Learner Interaction;
  - 3.5 Assessment;
  - 3.6 Professional Responsibilities; and
  - 3.7 Professional Relationships?
4. What is the respondents' assessment of the respondents on the teachers' level of teaching efficiency as to:
  - 4.1 Planning and Preparation;
  - 4.2 Classroom Environment;
  - 4.3 Instruction;
  - 4.4 Professional Responsibilities; and
  - 4.5 Use of Learners Assessment?
5. Is there a significant relationship between the teachers' level teaching efficiency and the level of 21st century skills?
6. Is there a significant relationship between the teachers' level teaching efficiency and the level of teaching practices?
7. Is there a significant relationship between the teachers' level of 21st century skills and the level of teaching practices?
8. Based on the findings, what development plan maybe proposed to improve the teachers' level of teaching efficiency?

## RESEARCH METHODOLOGY

### Design

This study utilized the quantitative descriptive-correlational research design with the aid of the

descriptive survey-questionnaire to determine the level of 21st century skills, teaching practices and teaching efficiency of the public elementary school teachers. Simple random sampling was used to determine the participants of the study.

### Environment and Participants

The study was conducted in all the public elementary schools in the district of Guindulman, Bohol namely: Basdio, Bato, Bayong, Biabas, Bulawan, Cabantian, Cabugan, Canhaway, Cansiwang, Casbu, Catungawan, Guinacot, Guindulman Central, Guio-ang, Lombog, Mayuga, Tabunoc, Tambis, and Trinidad. The participants of this study are 19 school heads, 175 teachers, 95 pupils from the said schools with a total of 289 respondents.

### Instrument/Tool

This research work made use of the following instruments developed by Glenn Andrin, (2011) as cited by Bendanillo, A. Tiempo, A. Torreon, L & Olandria A., (2019) and a standardized questionnaire designed by the Bukidnon State University – Malaybalay, Bukidnon. It consists of three (3) parts. Part I of the questionnaire begins with the personal background of the respondent. Part II was the checklist of the 21st-century skills practices of teachers and has 24 items. Part III focused on teachers' teaching practices constituting seven factors that have 35 items. Part IV has 25 items, concentrated on teaching efficiency which covered important teaching dimensions.

On questionnaire for the level of 21st century skills of teachers, the scales used in reflecting the respondents' level of judgment:

Rating	Description	Qualifying Statement
5	Very High	21 <sup>st</sup> century skills of teachers were manifested at all the time.
4	High	21 <sup>st</sup> century skills of teachers were manifested most of the time.
3	Moderate	21 <sup>st</sup> century skill of teachers when necessary.
2	Low	21 <sup>st</sup> century skills of teachers were manifested rarely.
1	Very Low	21 <sup>st</sup> century skill of teachers were not manifested at all.

On questionnaire for the teachers' level of teaching practices, the scales used in reflecting the respondents' assessment:

Rating	Description	Qualifying Statement
5	Very High	Practices the teachers' teaching responsibilities and functions at all the time.
4	High	Practices the teachers' teaching responsibilities and functions most of the time.
3	Moderate	Practices the teachers' teaching responsibilities and functions when necessary.
2	Low	Practices the teachers' teaching responsibilities and functions when necessary.
1	Very Low	Does not practices the teachers' teaching responsibilities and functions at all.

On questionnaire for the assessment of the respondents on the level of performance of teaching efficiency the scales used in reflecting the respondents' level of judgment:

Rating	Description	Qualifying Statement
5	Very High	The teachers' teaching efficiency is observed all the time.
4	High	The teachers' teaching efficiency is observed most of the time.
3	Moderate	The teachers' teaching efficiency is observed when necessary.
2	Low	The teachers' teaching efficiency is observed rarely.
1	Very Low	The teachers' teaching efficiency does not observed at all.

On questionnaire for the teacher's profile. An instrument used to gather the personal information. It covers name (optional), age, sex, highest educational attainment, length of service, grade level handled and related seminars and training.

### Data Gathering Procedure

Approval to conduct the study was secured from the researcher's adviser and the Dean of Advanced Studies of BISU Cogtong, Candijay Campus, Bohol and the approval from the Schools Division Superintendent. Then, a letter of permission to administer the questionnaires was sent to the respondents. The researcher distributed the questionnaires all the public elementary schools in the district of Guindulman, Bohol. The participants of this study are 19 school heads, 175 teachers, 95 pupils from the said schools with a total of 289 respondents.

### Data Analysis

To determine the relationship between and 21st - century skills and teaching practices and teaching efficiency used Spearman's coefficient of Correlation.

## THE FINDINGS

**Table 1. Profile of the Teacher-Respondents**  
N=175

	Frequency	Percentage (%)	Rank
<b>I.1. Age</b>			
21-30 years old	38	22.09	4
31-40 years old	53	30.81	1
41-50 years old	42	24.42	2
51-60 years old	39	22.67	3
<b>Total</b>	<b>175</b>	<b>100%</b>	
<b>I.2. Sex</b>			
Male	9	5.14	2
Female	166	94.86	1
<b>Total</b>	<b>175</b>	<b>100%</b>	

<b>1.3.Highest Educational Attainment</b>			
Bachelor's Degree Holder	92	52.57	1
With Units in Master's Degree	47	26.86	2
Master's Degree Holder	31	17.71	3
With Units in Doctorate Degree	5	2.86	4
Doctorate Degree Holder	0	0.00	5
<b>Total</b>	<b>175</b>	<b>100%</b>	
<b>1.4.Length of Teaching Experience</b>			
Below 1 year	0	0.00	8
1 – 5 years	44	25.14	1
6 – 10 years	27	15.43	3
11 – 15 years	43	24.57	2
16 – 20 years	22	12.57	4
21 – 25 years	13	7.43	6
26 – 30 years	17	9.71	5
31 years and above	9	5.14	7
<b>Total</b>	<b>175</b>	<b>100%</b>	
<b>1.5.Grade Level Handled</b>			
Kindergarten	10	5.71	7
Grade 1	29	16.57	1.5
Grade 2	29	16.57	1.5
Grade 3	26	14.86	5
Grade 4	28	16.00	3.5
Grade 5	25	14.29	6
Grade 6	28	16.00	3.5
<b>Total</b>	<b>175</b>	<b>100%</b>	
<b>1.6 Relevant Trainings/Seminars Attended</b>			
1. BASA Pilipinas On-Line Course on Effective Literacy Instruction	25	14.29	7
2.District-Based Mid- Year Assessment and In-Service Training on Enhancing Teaching Strategies in English, Mathematics, Music and Construction of Test Questions in Filipino, and Management Skills of Teachers	102	58.29	2
3.Division Level Training on K-12-Pedagogies, Child Centered Approaches	97	55.43	4
4.Early Childhood Development	9	5.14	14
5.Enhancement Training on Pedagogical Skills in Mother Tongue	34	19.43	6
6. Inclusive Education	91	52.00	5
7. International Training and Conference of All Educational Leaders and Teachers	98	56.00	3
8. Mass Training of Teachers on K to 12 Curriculum	120	68.57	1
9. National Computerization	17	9.71	11
10. Orientation Seminar on Philippine Performance Standards for Teachers/Results-Based Performance Management System Full Package	23	13.14	8
11.Reinforcing Effective Literacy Instruction and Child-Centered Techniques	10	5.71	13
12.Regional Training of Teachers on National Kindergarten Curriculum	13	7.43	12
13.Seminar Workshop on Multi-Factored Assessment Tool	21	12.00	9
14.Seminar Workshop on Interactive Teaching Strategies	18	10.29	10

Table 1 illustrates the profile of teacher-respondents as to their age, sex, highest educational attainment, teaching experience, grade level handled and relevant training/seminars attended. The result reveals that many of the teachers belonged to the age range of 31-40 years old with a frequency of 53 with the percentage of 30.81% and got the highest rank contrary to teachers aged 21-30 got the lowest rank with 22.09%. Also, as to sex, female teachers got the highest rank with a frequency of 166 covering 94.86% while the male teachers got the frequency of 9 or 5.14% of the total population. This indicates that many females like to be in line with teaching especially teaching young minds. As to the highest educational attainment, the result shows that teachers with a bachelor's degree holder got the highest rank with a total of 92 respondents having a percentage of 52.57% while on the contrary, no teacher-respondent that is a doctorate holder. This can be inferred that that teacher lacks attention concerning their continuing professional development.

According to Berry (2010), powerful learning demands well-prepared teachers who draw on advances in different fields. Therefore pupils need teachers who are developed in their fields through attending 21st century-based training and workshops and enrolling in a master's and doctorate degree. Moreover, as to the length of service in teaching, the range of 1 to 5 years got the highest rank with a frequency of 44 or 25.14% while range below 1 year got the lowest rank of 0.00%. This means that most of the teachers are neophytes in the teaching profession. With the grade level handled by the teachers, it can be seen that Grade 1 and Grade 2 levels have the same frequency of 29 or 16.57% and got the highest rank while teachers in Kindergarten level got the frequency of 10 or 5.71 and got the lowest rank. With the relevant trainings/seminar- workshops attended, the table revealed that teachers are given great concern on the implementation of different programs of the Department of Education. Mass Training of Teachings on K to 12 Curriculum got the highest numbers of teachers attended with the frequency of 120 covering 68.57%, District-Based Mid-Year Assessment and In-Service Training on Enhancing Teaching Strategies which has a frequency of 102 or 58.29% and International Training and Conference of All Educational Leaders and Teachers with the frequency of 98 or 56.00%. It is also evident that the seminar on Early Childhood Development has only a frequency of 9 or 5.14% which got the lowest rank.

**Table 2. Respondents' Assessment on the Teachers' Level of 21st Century Skills**  
N = 289

21 <sup>st</sup> Century Skills	Weighted Mean	Verbal Interpretation	Rank
Learning and Innovation Skills	4.49	Very High	2
Information, Media and Technology Skills	4.40	Very High	3
Life and Career Skills	4.54	Very High	1
<b>Average Weighted Mean</b>	<b>4.47</b>	<b>Very High</b>	

Legend:  
**Rating Scale**      **Verbal Interpretation (VI)**      **Weighted Mean (WM)**  
 4.20 – 5.00          Very High (VH)  
 3.40 – 4.19          High (H)  
 2.60 – 3.39          Moderate (M)  
 1.80 – 2.59          Low (L)  
 1.00 – 1.79          Very Low (VL)

Presented in Table 2 is the teachers' level of 21st Century Skills as to learning and innovation skills, information, media and technology skills, and life and career skills. The result revealed that the teachers' level of 21st century skills were rated as "Very High" with an average weighted mean of 4.47 and among the 21st century skills of the teachers, "Life and Career Skills" got the highest rank with the weighted mean of 4.54 which is described as "Very High". This denotes that teachers are skillful in handling their life and career. According to Pa-alisbo (2017), teachers are expected to exert more effort to upgrade teaching performance through different strategies achieving the demand of the 21st-century world.

**Table 3. Respondents' Assessment on the Teachers' Level of Teaching Practices**  
N = 289

Teaching Practices	Weighted Mean	Verbal Interpretation	Rank
Instructional Planning	4.65	Very High	2.5
Instructional Delivery	4.57	Very High	4
Classroom Management	4.70	Very High	1
Teacher-Learner Interaction	4.44	Very High	6
Assessment	4.40	Very High	7
Professional Responsibilities	4.65	Very High	2.5
Professional Relationships	4.55	Very High	5
<b>Average Weighted Mean</b>	<b>4.57</b>	<b>Very High</b>	

Legend:  
**Rating Scale**      **Verbal Interpretation (VI)**      **Weighted Mean (WM)**  
 4.20 – 5.00          Very High (VH)  
 3.40 – 4.19          High (H)  
 2.60 – 3.39          Moderate (M)  
 1.80 – 2.59          Low (L)  
 1.00 – 1.79          Very Low (VL)

Table 3 shows the teachers' level of teaching practices in terms of instructional planning, instructional delivery, classroom management, teacher-learner interaction, assessment, professional responsibilities, and professional relationships. The result shown that the teachers' level of



teaching practices were rated “Very High”, with an average weighted mean of 4.57, as assessed by the respondents. The result further depicted that the level of teachers’ classroom management practices rank the highest among other aspects of teaching practices with a weighted mean of 4.70 which is described as “Very High”. This means that the teachers’ teaching practices in terms of instructional planning, instructional delivery, classroom management, teacher-learner interaction, assessment, professional responsibilities, and professional relationships were evident as observed by the respondents.

Highly effective teachers in the country are more needed. Educators should demonstrate competencies like having effective classroom management, promote positive relationships and cooperation. Teachers must have to provide learners with the knowledge and skills to meet the demands of today’s globalization (Chalkiadaki, 2018).

**Table 4. Respondents’ Assessment on Teachers’ Level of Teaching Efficiency**  
N = 289

Teaching Practices	Weighted Mean	Verbal Interpretation	Rank
Planning and Preparation	4.43	Very High	4
Classroom Environment	4.46	Very High	3
Instruction	4.49	Very High	1.5
Professional Responsibilities	4.49	Very High	1.5
Use of Learners Assessment	4.34	Very High	5
<b>Average Weighted Mean</b>	<b>4.44</b>	<b>Very High</b>	

Legend:

Rating Scale	Verbal Interpretation (VI)	Weighted Mean (WM)
4.20 – 5.00	Very High (VH)	
3.40 – 4.19	High (H)	
2.60 – 3.39	Moderate (M)	
1.80 – 2.59	Low (L)	
1.00 – 1.79	Very Low (VL)	

Table 4 illustrates the assessment of the respondents on the teachers’ teaching efficiency as to planning and preparation, classroom environment, instruction, professional responsibilities, and the use of learners’ assessment. The result disclosed that the teachers’ level of teaching efficiency as to planning and preparation, classroom environment, instruction, professional responsibilities, and the use of learners’ assessment were all rated “Very High”. Further, the level of teachers’ teaching efficiency as to instruction and professional responsibilities got the highest weighted mean of 4.49 described as “Very High”. This implies that the teachers’ teaching efficiency is observed by the respondents all the time. This signi-

fies further that teachers are not just good in the classroom for giving instructions and inputs but also as teachers with the passion that would do their professional responsibilities with utmost dedication.

In the process of globalization, schools are required to prepare learners to be effective, responsible and globally competitive individuals (Uche, et.al, 2016). Therefore, learners need teachers that will help them to master the knowledge, abilities, skills necessary to take advantage of the opportunities of today’s modernity.

**Table 5. Relationship Between the Teachers’ Teaching Efficiency and 21st - Century Skills**  
N = 175

Teaching Efficiency and.....	r	p-value	Interpretation	Decision
Learning and Innovation	0.407	<0.001	Significant	Reject Ho
Information, Media, and Technology Skills	0.256	0.001	Significant	Reject Ho
Life and Career Skills	0.333	<0.001	Significant	Reject Ho
Overall 21 <sup>st</sup> Century Skills	0.478	<0.001	Significant	Reject Ho

\*Correlation is significant at 0.5 level (2-tailed)

Table 5 unveils the test of the relationship between the teachers’ teaching efficacy and their 21st Century skills in terms of learning and innovation, information, media, and technology skills and life and career skills. The result revealed that there is a significant relationship between the teachers’ teaching efficacy and their 21st Century skills in terms of learning and innovation, information, media, and technology skills and life and career skills since the computed correlation value of 0.407, 0.256, and 0.333, respectively with the corresponding computed p-value of <0.001, 0.001, and <0.001 which is lesser than 0.05 level of significance, thus the null hypothesis is rejected. This implies that teachers are competent, have comprehensive knowledge and understanding, and ability to create situations and encourage learners to use higher-order thinking skills. Thus, illustrates an efficient teacher. Moreover, there is a significant relationship between teachers’ teaching efficacy and overall level of 21st Century skills since the computed correlation value of 0.487 with a computed p-value of <0.001 which is lesser than 0.05 level of significance, thus the null hypothesis is rejected. This describes that teachers who possess the 21st-century skills are efficient in their fields.



This assertion is supported by the study of Corpuz and Salandanan (2012), that in order to remain relevant and interesting, the teacher must possess 21st-century skills. The 21st-century teacher is one who is adequately equipped with skills, highly collaborative, a lifelong learner is accountable for.

**Table 6. Relationship Between the Teachers' Teaching Efficiency and Practices**  
N = 175

Teaching Efficiency and.....	r	p-value	Interpretation	Decision
Instructional Planning	0.243	0.001	Significant	Reject Ho
Instructional Delivery	0.416	<0.001	Significant	Reject Ho
Classroom Management	0.509	<0.001	Significant	Reject Ho
Teacher-Learner Interaction	0.653	<0.001	Significant	Reject Ho
Assessment	0.661	<0.001	Significant	Reject Ho
Professional Responsibilities	0.549	<0.001	Significant	Reject Ho
Professional Relationship	0.534	<0.001	Significant	Reject Ho
Overall Level of Teaching Practices	0.787	<0.001	Significant	Reject Ho

\*Correlation is significant at 0.5 level (2-tailed)

Table 6 discloses the test of the relationship between the teachers' teaching efficacy and practices in terms of instructional planning, instructional delivery, classroom management, teacher-learner interaction, assessment, professional responsibilities and professional relationship. The result has shown that there is a significant relationship between the teachers' teaching efficacy and practices in terms of instructional planning, instructional delivery, classroom management, teacher-learner interaction, assessment, professional responsibilities and professional relationship since the computed correlation value of 0.243, 0.416, 0.509, 0.653, 0.661, 0.549, and 0.534, respectively with the corresponding computed p-value of 0.001 for instructional planning and both <0.001 for instructional delivery, classroom management, teacher-learner interaction, assessment, professional responsibilities and professional relationship which is lesser than 0.05 level of significance, thus the null hypothesis is rejected. This can be inferred that teachers' way of demonstrating the different teaching practices are within the standards and high level of teaching efficacy.

Moreover, there is a significant relationship between teachers' teaching efficacy and overall level of teaching practices since the computed

correlation value of 0.787 with a computed p-value of <0.001 which is lesser than 0.05 level of significance, thus the null hypothesis is rejected. This defines that teachers who are engaged in teaching practices promote teaching efficiency.

This is congruent to the study of Andrin, G. (2011) as cited by Bendanillo, A., et al., (2019), that professional practices are significantly related to the level of teaching efficiency. Teachers who are engaged professional practices very satisfactorily promote teaching efficiency. In addition, teaching practices such as instructional planning, instructional delivery, classroom management, teacher learner interaction, assessment, professional responsibilities and professional relationships could also improve teaching efficiency.

**Table 7. Relationship Between the Teachers' Teaching Practices and their Level of 21st Century Skills**  
N = 175

Teaching Practices and.....	r	p-value	Interpretation	Decision
21 <sup>st</sup> Century Skills	0.528	<0.001	Significant	Reject Ho

\*Correlation is significant at 0.5 level (2-tailed)

Table 7 illustrates the test of the relationship between the teachers' teaching practices and their 21st Century Skills. The result displayed that there is sufficient evidence that teachers' teaching practices and their 21st Century Skills are significantly related since the computed correlation value of 0.528 with a p-value of <0.001 which is lesser than 0.05 level of significance, thus the null hypothesis is rejected. This indicates that teachers' teaching practices are in-line with their competence in 21st-century skills. Teachers are equipped with the essential competencies and standards expected of them as public school teachers under the banner of the Department of Education.

Furthermore, components of competent teaching are set forth at a relatively high level, requiring further detail to demonstrate how they unfold in particular situations as may be influenced by such factors as the subject matter, characteristics of students in the classroom, and others. While these competencies may be taught and learned, their enactment will be influenced not only by what teachers know and know how to do but also by the conditions of teachers' work. Competence then is not simply what teachers bring to the contexts in which they work but also what those contexts support or limit. In action, competence is always shaped by persons-in-situations (Kennedy,

2010). Also, while competence may be assessed for various purposes, this account is not limited to what may be measured.

### CONCLUSIONS

In the light of the findings presented, the following conclusions are formulated by the researcher.

Based on the findings, the association between the level of 21st century skills, teachers' teaching practices and efficiency were statistically significant teachers possess a very high level of the 21st century skills which include learning and innovation skills, information, media and technology skills and life and career skills. Teachers are always efficient in terms of planning and preparation, classroom environment, instruction, professional responsibilities and use of learners assessment. Moreover, the teachers' way of demonstrating the different teaching practices is within the standards and with high level of teaching efficiency.

### RECOMMENDATIONS

Based on the findings and conclusions, the researcher arrived at the following recommendations:

- Teachers are encouraged to pursue educational advancement for a high level of teaching efficiency and adapt to the 21st-century world.
- Teachers are encouraged to attend training and seminars for their professional growth and adapt changes through implementing new programs with regards to 21st-century skills and teaching efficiency.
- The school heads should initiate and implement programs and practices which could promote the skills needed in the 21st century and teaching efficiency.
- Administrators should evaluate and monitor teachers' skills in their practice of quality teaching within the demands of the 21st century, also to continuously implement programs addressing teaching efficiency.
- Future researchers may conduct a similar study and make this study as a reference to come up with a more meaningful result of related study.

### PROPOSED PROFESSIONAL DEVELOPMENT PROGRAM

Time Frame : School Year 2020-2021  
Proposed Budget : Php 200,000.00

Areas of Concern	Objectives	Activities/Strategies	Persons Involved	Time Frame	Success Indicator	Budget	Source of Funds
Professional Growth	Improve teachers' competence and pursue educational advancement	Invite experts or resource speakers to conduct symposium.	Division Superintendent, Administrators, Teachers	April 2020-May 2020	Increased Professional Preparation	-	-
Teaching Practices	Improve level of effectiveness among public schools	Symposium Workshops Trainings Enhancement Program Scholarship Grants	Division Superintendent, Administrators, Teachers, State Universities' administrators and professors	June 2020-March 2021	Improved Level of Teachers' Effectiveness	Php 150,000	MOOE, SEF, School Funds, Local Funds, LGU
Trainings and Seminar Workshops	Enhance teaching efficiency and acquire 21 <sup>st</sup> century skills among teachers	Conduct training for Teachers' Enhancement during In-Service Training	Division Superintendent, Administrators, Teachers	October 2020-May 2021	Enhanced Teaching Efficiency	Php 50,000	MOOE, SEF, School Funds, Local Funds, LGU

## BIBLIOGRAPHY

- Arrington, Jeff (2014). *Creating 21<sup>st</sup> century classrooms: what district level instructional leaders know about leading 21<sup>st</sup> century learning*, <https://pdfs.semanticscholar.org/aa4d/1c5c49b56eddba09df1ea6cfa968076d4bd2.pdf>
- Bendanillo, A. Tiempo, A. Torreon, L & Olandria A., (2019). *Professional preparation and practices in relation to teaching efficiency among public elementary school teachers*. Asian Intellect Research and Education Journal. A refereed journal published the Asian Intellect for Academic Organization and Development Inc. San Rafel, Tarlac City with ISSN: 2467-4885 Volume 11 June 2019.
- Berliner, Daniel C.(1992). *The nature of expertise in teaching*. San Francisco CA:Jossey-Bass
- Berliner, Daniel C.(2001). *Learning about and learning from expert teachers*. International Journal of Educational Research. Retrieved from <https://www.researchgate.net/publication/223109706>
- Berry, Barnett (2010). *21<sup>st</sup> century learning*, <https://www.edweek.org/tsb/articles/2010/10/12/01panel.h04.html>
- Boholano, Helen (2017). *Smart social networking: 21<sup>st</sup> century teaching and learning skills*, <https://eric.ed.gov/?id=EJ1149146>
- Bukidnon State University. *Questionnaire on the practices of public elementary school teachers on the 21<sup>st</sup> century skills: Basis for intervention*, <https://www.slideshare.net/mobile/ERICHERETAPE/questionnaire-for-teachers-practices-on-the-21st-century-skills>
- Care, Kim, Vista & Anderson (2018). *Education system alignment for 21<sup>st</sup> century*, <https://www.brookings.edu/wp-content/uploads/2018/11/Education-system-alignment-for-21st-century-skills-012819.pdf>
- Chalkiadiaki, Areti (2018). *A systematic literature review of the 21<sup>st</sup> century skills and competencies in primary education*, <https://www.researchgate.net/publication/325973920>
- Cherry, Kendra (2019). *Gardner's theory of multiple intelligences*, <https://www.verywellmind.com/gardners-theory-of-multiple-intelligences-2795161>
- Corpuz, B. & Salandanan, G. (2012). *The teaching profession*. Lorimar Publishing, Metro Manila
- Department of Education. *Code of Ethics for Professional Teachers*, <https://depedtambayan.net/the-code-of-ethics-for-professional-teachers>
- Department of Education (2019). *Policy guidelines on the K to 12 Basic Education Program*, [https://www.deped.gov.ph/wp-content/uploads/2019/08/DO\\_s2019\\_021.pdf](https://www.deped.gov.ph/wp-content/uploads/2019/08/DO_s2019_021.pdf)
- Egnor, Gregory (2013). *A case study of 21<sup>st</sup> century skills in high achieving elementary schools in Pennsylvania*, <https://pdfs.semanticscholar.org/6ed7/b0523829c396066cf26fda8a59a2e969ae1d.pdf>
- Ericsson, K. Anders. (1996). *The acquisition of expert performance: An introduction to some of the issues*. Mahwah, New Jersey. Lawrence Erlbaum Associates
- Ericsson, K. Anders. (2002). *Attaining excellence through deliberate practice: insights from the expert performance*, [https://scholar.google.com/attaining\\_excellence\\_through\\_deliberate\\_practice](https://scholar.google.com/attaining_excellence_through_deliberate_practice)
- Ericsson, K. Anders. (2007). *The making of an expert*. Harvard Business Review, 115-121\_hbr.org
- Ericsson, K. Anders. (2008). *Deliberate practice and acquisition of expert performance*, <https://doi.org/10.1111/j.1553-2712.2008.00227.x>
- Hatano, G. & Inagaki, K. (1986). *Two courses of expertise*. New York: W.H. Freeman, [https://scholar.google.com-two\\_courses\\_of\\_expertise\\_1986](https://scholar.google.com-two_courses_of_expertise_1986)
- Kennedy, Declan (2010). *Learning outcomes and competences*, [https://www.researchgate.net/publication/285264101\\_Learning\\_Outcomes\\_and\\_Competences](https://www.researchgate.net/publication/285264101_Learning_Outcomes_and_Competences)
- Lai & Veiring (2012). *Twenty-first century skills*, <http://www.ibe.unesco.org/en/glossary->

- curriculum-terminology/t/twenty-first-century-skills
- McLeod, Saul (2018). *Piaget's theory of cognitive development*, <https://www.simplypsychology.org/piaget.html>
- Nabavi, Razieh (2012). *Bandura's social learning theory and social cognitive learning theory*, <https://www.researchgate.net/publication/267750204>
- Nessipbayeya, Olga (2015). *The competencies of the modern teacher*, <https://files.eric.ed.gov/fulltext/ED567059.pdf>
- O'niell, Sharyn (2009). *Effective teaching*, [http://det.wa.edu.au/policies/detcms/cms-service/download/asset\\_id\\_63212114](http://det.wa.edu.au/policies/detcms/cms-service/download/asset_id_63212114)
- Pa-alisbo, Mark Anthony (2017). *The 21<sup>st</sup> century skills and job performance of teachers*, <https://files.eric.ed.gov/fulltext/ED578609.pdf>
- Philippine Laws and Jurisprudence Databank. *Batas Pambansa Blg. 232(Education Act of 1982) Section 16 (2)*, [https://www.lawphil.net/statues/bataspam/bp1982/bp\\_232\\_1982.html](https://www.lawphil.net/statues/bataspam/bp1982/bp_232_1982.html)
- Reynolds, Richard (1992). *The need for knowledge about teacher educators*, <https://files.eric.ed.gov/ED372041.pdf>
- Snow, C.E., Griffin, P. & Bums, M.S. (2005). *Knowledge to support the teaching of reading: preparing teachers for a changing world*. San Francisco, CA: Jossey-Bass
- Soland, Hamilton & Stecher (2013). *Measuring 21<sup>st</sup> century competencies*, <https://asiasociety.org/files/gcen-measuring21skill.pdf>
- Stewart, Vivien (2014). *Assessing 21<sup>st</sup> century skills and competencies around the world*, <https://asiasociety.org/global-cities-education-network/assessing-21st-century-skills-and-competencies-around-world>
- Tan, Koh, Chan, Onishi & Hung (2017). *Advancing 21<sup>st</sup> century competencies in Singapore*, <https://asiasociety.org/sites/default/files/2017-10/advancing-21st-century-competencies-in-singapore.pdf>
- Uche, Chineze (2016). *Teachers' level of awareness of 21<sup>st</sup> century occupational roles of River State secondary schools*, <https://files.eric.ed.gov/fulltext/EJ1102780.pdf>
- Vail, Lisa (2010). *Teaching in the 21<sup>st</sup> century*, <http://dl.uncw.edu/Etd/2010-2/vail/lisavail.pdf>
- Villegas, Avelina N. (2012). *The Domains of NCBTS*, [http://udyong.gov.ph/index.php?option=com\\_content&view:the-domains-of-ncbts](http://udyong.gov.ph/index.php?option=com_content&view:the-domains-of-ncbts)

# COMPUTER LABORATORY MANAGEMENT PRACTICES IN SURIGAO STATE COLLEGE OF TECHNOLOGY: AN ASSESSMENT

**ARVIN E. MAG USARA, PhD**  
Faculty, College of Technology  
Surigao State College of Technology

**JAMES M. DUMAGUIT, RME, PhD**  
Faculty, College of Technology  
Surigao State College of Technology

## ABSTRACT

This study assessed the level of computer laboratory management practices in Surigao State College of Technology. Specifically, it assessed the laboratory practices of the College on hardware management, software management, policy implementation, internet management, power stability, lighting and ventilation and technical support. Descriptive-inferential research design was used having a survey-instrument which was adopted from previous related studies for computer laboratory management practices. There were 42 faculty and 100 students' respondents who answered the survey questionnaire. Data were analyzed using the Mean and Ordinal Rank, Analysis of Variance for Dependent Samples.

Result revealed that the laboratory management practices was rated *Agree* or *Much Practiced* in all aspects by the faculty and student respondents except on internet management wherein they rated as *Disagree* or *Less Practiced*. Thus, the study concluded that effective and proper management of computer laboratories contribute to the knowledge acquired by the students. This study generally suggested that internet should be more accessible for both faculty and students for it can improve the quality of education in many ways. It opens doorways to a wealth of information, knowledge and educational resources, increasing opportunities for learning in and beyond the classroom.

*Keywords: Computer lab, Assessment, Management Practices, Perceptions*

## INTRODUCTION

Nowadays most educational institutions are equipped with computer laboratories to provide training for students that qualify them for their professional life (Gaber, 2018). Computers played an increasingly important role in the educational process and higher learning institutions sought to improve the quality of computer access they provide on their campuses. As stressed by Kuol et al., (2018), computers have been used in higher education for over thirty years both as a subject of study and as a tool to assist in the learning process within other discipline. In fact, computer laboratory classes have played a major role in the teaching of computing subjects in universities and colleges.

The practical component of a computer course is usually taught in the computer laboratory class. The main objectives of such a laboratory class

include not only helping students to achieve proficiency but also to develop knowledge and skills such as critical awareness, problem solving, communication of technical concepts, and independent thinking. Studying Information and Communication Technology means developing more advanced ICT knowledge, understanding on how technology works, acquiring practical skills like coding/programming and gaining a theoretical understanding of topics like computer science and web development. Employers in many sectors are in demand for college graduates equip with ICT knowledge and skills. It is widely acknowledged that there are expertise shortages in the ICT area by employers, industry experts and government officials alike.

In the Philippine higher education setting, the importance of computer laboratories is evident. Section 16.2 of CHED Memorandum Order

No.25 s. 2015, enumerated the minimum requirements for laboratories as to: number of computer terminals, internet access, conformance of hardware and software to the generally accepted standard in the industry, availability of equipment for courses that require specific hardware and the use of license software including free and open source. Moreover, Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACUP) - accrediting body of curricular programs in the Philippines, particularly for state universities and colleges - identifies four major parameters for evaluating Area IX (Laboratories) of every program subjected for accreditation and leveling namely: Laboratories, Shops/Facilities, Equipment and Supplies, Maintenance and Special Provisions.

Despite the perceived importance of laboratory classes little research has been done on computer laboratory environments and their effect upon learning (Kuol, et al., 2018). In the province of Surigao del Norte, there are several higher education institutions offering bachelor's degree in computer studies. Surigao State College of Technology is one of those institutions that offer such programs. Like any other colleges and universities, it also faces diverse issues and challenges pertaining to computer laboratory implementations. Students spent many hours in computer laboratory under the supervision of qualified professors.

In this context, the researcher opted to determine the level of computer laboratory implementations, specifically its management practices, to acquiring of knowledge among the students.

### Objectives of the Study

The general objective of this study is to assess the of computer laboratory management practices in Surigao State College of Technology.

Specifically, it assessed the computer laboratory practices of the College on hardware management, software management, policy implementation, internet management, power stability, lighting and ventilation and technical support.

### Theoretical Framework

Figure 1 presents the theoretical model of this study. It can be seen the two (2) overlapping circles where the first circle represents theories of behaviorism and cognitivism and the second circle represents the knowledge acquisition theory. The space in the middle shared by the two circles contained the computer laboratory management practices. These practices involve all necessary

activities undertaken to maintain computer labs. Further, the figure depicts that computer laboratory management practices are anchored on theories of behaviorism and cognitivism and knowledge acquisition. These theories contribute a crucial role and consideration in implementing computer laboratory management to create facilities conducive to student learning. It elaborates further that any faculty handling courses with laboratory should have enough and equipped with cognition or knowledge in order that when he/she comes to laboratory, he/she has something to share to their students and be of help in their students' journey towards knowledge acquisition.

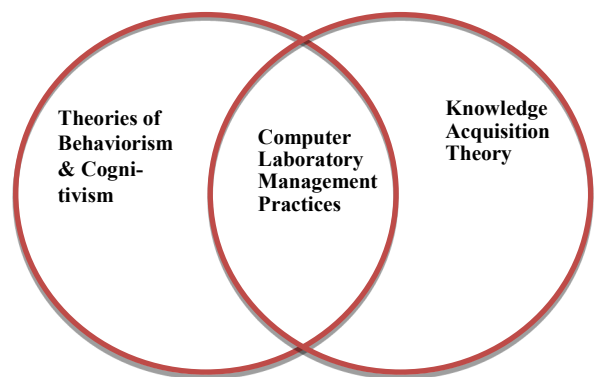


Figure 1  
Theoretical Model

## RESEARCH METHODOLOGY

### Research Design

The study made use of the descriptive design method. A descriptive survey design was used to answer the computer laboratory management practices in Surigao State College of Technology.

### Research Environment

This study was conducted at the Surigao State College of Technology, Surigao City Campus.

Surigao State College of Technology has four campuses: the Del Carmen Campus, Magpayang Campus, Malimono Campus and Surigao City Campus.

### Respondents

The research study was participated-in by the 42 faculty and 100 students in Surigao State College of Technology. The student-respondents were obtained through a purposive sampling since there are only few third-year students enrolled in the said program.



## Research Instrument

The instrument to be used in the study is the researcher-made questionnaire which was anchored and adopted from the previous related studies. The questionnaire contains pertinent questions to be checked and supplied answers by the respondents.

## Data Analysis

This study used the following statistical tools in analyzing the data.

Mean and Ordinal Rank. These tools were used to measure the computer laboratory management practices.

Weighted mean. This is used to analyze the data pertaining to the evaluation of the computer laboratory management practices as assessed by the respondents.

## RESULTS AND DISCUSSIONS

### Computer Laboratory Management Practices

#### Hardware Management

Table 1. Presents the computer laboratory hardware management practices as assessed by the faculty and students.

**Faculty.** Seen in the Table that computer management practices as to hardware management are adopted in the computer laboratories in Surigao State College of Technology as verified in the mean of 3.33 described as much practiced. This brings out the information that repairs and maintenance on the physical components of a computer and its peripherals, including fans, hard drives, keyboards and printers are regularly practiced in the computer laboratories through its assigned computer technicians.

**Table 1 Computer Laboratory Management Practices as to Hardware Management**

Statement	Faculty				Students			
	M	R	VI	QD	M	R	VI	QD
1. preventive maintenance is periodically conducted.	3.48	3	A	MP	3.04	4	A	MP
2. computer specifications are capable of running all application programs.	3.19	4	A	MP	3.05	3	A	MP
3. functional computer peripheral like printer, scanner, headset, etc. is available.	2.88	5	A	MP	2.62	5	A	MP
4. LCD/TV projector is installed.	3.55	1.5	SA	VMP	3.51	1	SA	VMP
5. computers are connected to a local area network.	3.55	1.5	SA	VMP	3.39	2	A	MP
<b>Average</b>	<b>3.33</b>		<b>A</b>	<b>MP</b>	<b>3.12</b>		<b>A</b>	<b>MP</b>

#### Legend:

3.50 – 4.00	Strongly Agree (SA)	Very Much Practiced (VMP)
2.51 – 3.49	Agree (A)	Much Practiced (MP)
1.50 – 2.50	Disagree (D)	Less Practiced (LP)
1.00 – 1.49	Strongly Disagree (SD)	Not Practiced (NP)

*M*–Mean *R*–Rank *VI*–Verbal Interpretation *QD*–Qualitative Description

**Students.** Highlighted in similar Table is the average mean of 3.12, described as much practiced. This brings the idea that hardware management in computer laboratories is observed by the College. To be specific, item “LCD/TV projector is installed” obtained the highest mean of 3.51, described as very much practiced. While item “functional computer peripheral like printer, scanner, headset, etc. is available” registered the lowest mean of 2.62, but still described as much practiced. This means that from among the indicators, the above-mentioned item has not given utmost attention by the laboratory in-charge as assessed by the students and provides information to the College of its attention from them to make clients like the students to be more satisfied of its service.

Routine maintenance and consistent management steps are very important to ensure optimum usage and longer life span of these equipment. Role completeness of facilities and infrastructure with proper management also determine the quality of teaching and learning processes in schools (Elmunyah, 2015). Another benefit of effective management of hardware assets is that, it can help companies save money by enabling them to get the most out of their existing IT assets.

#### Software Management

Table 2. Presents the computer laboratory software management practices of Surigao State College of Technology as assessed by both the faculty and student-respondents.

**Faculty.** The average mean of 2.78, described as much practiced imply that the College has been practicing measures to reduce safety risks in all aspects of a computer program.

Further gleaned in the Table that they have observed that the computer laboratories in the College “updates/plugin for operating system and application programs are installed”, “anti-virus/anti-malware is installed and regularly updated”, and “virus/ malware scanning is regularly conducted” ranked equal with the mean of 2.95, described as much practiced. These denote that software management as assessed by the faculty is taken care off by the computer laboratory custodians. Nevertheless, item 2 “licensed application software/ programs are used” has registered the mean of 2.45, described as less practiced. This



means that this is not fully implemented by the College.

**Table 2. Computer Laboratory Management Practices as to Software Management**

Statement	Faculty				Students			
	M	R	VI	QD	M	R	VI	QD
1. licensed operating system is utilized.	2.60	4	A	MP	2.97	4	A	MP
2. licensed application software/ programs are used.	2.45	5	D	LP	3.00	3	A	MP
3. updates/plugin-ins for operating system and application programs are installed.	2.95	2	A	MP	3.17	1	A	MP
4. anti-virus/ anti-malware is installed and regularly updated.	2.95	2	A	MP	3.01	2	A	MP
5. virus/malware scanning is regularly conducted.	2.95	2	A	MP	2.87	5	A	MP
<b>Average</b>	<b>2.78</b>		<b>A</b>	<b>MP</b>	<b>3.00</b>		<b>A</b>	<b>MP</b>

Legend:  
 3.50 – 4.00 Strongly Agree (SA) Very Much Practiced (VMP)  
 2.51 – 3.49 Agree (A) Much Practiced (MP)  
 1.50 – 2.50 Disagree (D) Less Practiced (LP)  
 1.00 – 1.49 Strongly Disagree (SD) Not Practiced (NP)  
*M*–Mean *R*–Rank *VI*–Verbal Interpretation *QD*–Qualitative Description

**Students.** The average mean of 3.00, described as much practiced entails that like the faculty assessment, students believe that software management is also given attention by the college. This is being supported by all items therein which have a qualitative description of much practiced to give information that software management is given fair attention by the college.

The opposing finding of both respondents on the item “licensed computer software/programs are used” is due to the fact that the faculty is more knowledgeable in terms of software licensing than the students whose main purpose is only to come to laboratory and learn from the use of computers.

### Policy Implementation

Table 3. Illustrates the computer laboratory management practices as to policy implementation.

**Table 3. Computer Laboratory Management Practices as to Policy Implementation**

Statement	Faculty				Students			
	M	R	VI	QD	M	R	VI	QD
1. operations manual for the faculty and students is provided.	3.02	5	A	MP	3.26	2	A	MP
2. 1:1 student-computer ratio is implemented.	3.17	4	A	MP	3.15	4	A	MP
3. hardware and software tampering are strictly prohibited.	3.52	3	SA	VMP	3.16	3	A	MP
4. users are not allowed to install, update nor download any software in any computers.	3.57	2	SA	VMP	2.98	5	A	MP
5. playing games is not allowed, e.g. video games, card games and other games.	3.64	1	SA	VMP	3.28	1	A	MP
<b>Average</b>	<b>3.39</b>		<b>A</b>	<b>MP</b>	<b>3.17</b>		<b>A</b>	<b>MP</b>

Legend:  
 3.50 – 4.00 Strongly Agree (SA) Very Much Practiced (VMP)  
 2.51 – 3.49 Agree (A) Much Practiced (MP)  
 1.50 – 2.50 Disagree (D) Less Practiced (LP)  
 1.00 – 1.49 Strongly Disagree (SD) Not Practiced (NP)  
*M*–Mean *R*–Rank *VI*–Verbal Interpretation *QD*–Qualitative Description

**Faculty.** Seen in the Table is the average mean of 3.39, described as much practiced to amplify that rules and regulations in computer laboratory are put into place to ensure availability and maintain a positive user experience in the SSCT computer labs.

**Students.** The average mean of 3.17, described as much practiced provides the idea that policy implementation in the computer laboratories in the College is highly observed as supported by its individual statements which are all described as much practiced. This goes to show that conducting instructions and laboratory works are systematized and in order since policies are implemented and followed in the laboratories by its users.

### Internet Management

Table 4. Emphasizes the computer laboratory management practices as to internet management.

**Table 4. Computer Laboratory Management Practices as to Internet Management**

Statement	Faculty				Students			
	M	R	VI	QD	M	R	VI	QD
1. each computer has an internet connection.	2.00	5	D	LP	2.22	4	D	LP
2. students have an allotted internet access account.	2.26	4	D	LP	2.30	3	D	LP
3. internet speed is fair enough for web surfing.	2.36	3	D	LP	2.15	5	D	LP
4. educational/tutorial sites are accessible.	2.76	1	A	MP	2.61	1	A	MP
5. internet access is filtered and regulated.	2.50	2	A	MP	2.51	2	A	MP
<b>Average</b>	<b>2.38</b>		<b>D</b>	<b>LP</b>	<b>2.36</b>		<b>D</b>	<b>LP</b>

Legend:  
 3.50 – 4.00 Strongly Agree (SA) Very Much Practiced (VMP)  
 2.51 – 3.49 Agree (A) Much Practiced (MP)  
 1.50 – 2.50 Disagree (D) Less Practiced (LP)  
 1.00 – 1.49 Strongly Disagree (SD) Not Practiced (NP)

*M*–Mean *R*–Rank *VI*–Verbal Interpretation *QD*–Qualitative Description

**Faculty.** It can be seen in the Table the average mean of 2.38, described as less practiced points out that internet management is not well-implemented in the college. This is supported by its individual items “internet speed is fair enough for web surfing” (M=2.36, Less Practiced); “students have an allotted internet access account” (M=2.26, Less Practiced), and “each computer has an internet connection” (M=2.00, Less Practiced).

**Students.** Exemplified in the Table is the average mean of 2.36, described as less practiced to specify that internet management is not accessible for students' use. Similar to the assessment of the faculty, the finding is in parallel with its individual items "internet speed is fair enough for web surfing (M=2.36, Less Practiced); students have an allotted internet access account" (M=2.26, Less Practiced), and "each computer has an internet connection" (M=2.00, Less Practiced).

### Power Stability

Table 5. Presents the computer laboratory management practices as to power stability.

**Table 5 Computer Laboratory Management Practices as to Power Stability**

Statement	Faculty				Students			
	M	R	VI	QD	M	R	VI	QD
1. power interruptions/blackouts do not occur.	2.31	4	D	LP	2.58	5	A	MP
2. back-up generator set is used during power failure.	2.05	5	D	LP	2.68	4	A	MP
3. automatic voltage regulator is installed in each computer.	3.40	2	A	MP	3.11	3	A	MP
4. protective equipment such as uninterruptible power supplies (UPS) is used.	3.31	3	A	MP	3.20	2	A	MP
5. sufficient power outlets for the system units, monitors and other equipment are available.	3.62	1	SA	VMP	3.44	1	A	MP
<b>Average</b>	<b>2.94</b>		<b>A</b>	<b>MP</b>	<b>3.00</b>		<b>A</b>	<b>MP</b>

Legend:

3.50 – 4.00 Strongly Agree (SA) Very Much Practiced (VMP)  
 2.51 – 3.49 Agree (A) Much Practiced (MP)  
 1.50 – 2.50 Disagree (D) Less Practiced (LP)  
 1.00 – 1.49 Strongly Disagree (SD) Not Practiced (NP)

M–Mean R–Rank VI–Verbal Interpretation QD–Qualitative Description

**Faculty.** The average mean of 2.94 underscored that power stability as a part of computer management practices of the College is much practiced. It can be gleaned in the Table that item 5 "sufficient power outlets for the system units, monitors and other equipment are available" ranked first (M=3.62).

**Students.** The computer laboratories have stable power as evidenced in the average mean of 3.00, described as much practiced. Particularly, all indicators are rated by student-respondents as much practiced to imply that power stability is observed by the students.

When there is a power outage, whether it is due to a massive storm in the area or a localized event that knocks out power, a backup generator is important. With an enough standby generator, heating, cooling, ventilation, refrigeration, security, office transactions, computer laboratory classes can continue to work. These capabilities allow

a school to continue fully functioning until normal power is restored.

### Lighting and Ventilation

Table 6. Presents the computer laboratory management practices as to lighting and ventilation.

**Table 6 Computer Laboratory Management Practices as to Lighting and Ventilation**

Statement	Faculty				Students			
	M	R	VI	QD	M	R	VI	QD
1. furniture and equipment arrangement allow free flow of movement that enables students to work comfortably without interference.	3.52	1.5	SA	VMP	3.27	2	A	MP
2. room lighting conforms to the standard requirements of fluorescent bulbs relative to its size.	3.36	3	A	MP	3.42	1	A	MP
3. air-conditioning unit is installed to provide sufficient cooling.	2.60	5	A	MP	2.31	5	D	MP
4. windows were installed with sun buffers/blinds to avoid direct sun heat/glare.	2.76	4	A	MP	3.09	4	A	MP
5. cleanliness and orderliness are maintained.	3.52	1.5	SA	VMP	3.26	3	A	MP
<b>Average</b>	<b>3.15</b>		<b>A</b>	<b>MP</b>	<b>3.07</b>		<b>A</b>	<b>MP</b>

Legend:

3.50 – 4.00 Strongly Agree (SA) Very Much Practiced (VMP)  
 2.51 – 3.49 Agree (A) Much Practiced (MP)  
 1.50 – 2.50 Disagree (D) Less Practiced (LP)  
 1.00 – 1.49 Strongly Disagree (SD) Not Practiced (NP)

M–Mean R–Rank VI–Verbal Interpretation QD–Qualitative Description

**Faculty.** Shown in the Table is the average mean for lighting and ventilation which is 3.15 described as much practiced. This puts emphasis that lighting and ventilation in the computer laboratories are properly mounted. The computer laboratory is prepared to facilitate the installation of computers and provide a safe conducive environment for teaching and learning of computer studies and one way of making it more conducive is to have proper lighting and ventilation.

**Students.** The average mean of 3.07, described as much practiced emphasizes that lighting and ventilation is observed among the users of laboratory. Specifically, the student-respondents observed that "room lighting conforms to the standard requirements of fluorescent bulbs relative to its size" ranked first with the mean of 3.42, described as practiced. Item 1 "furniture and equipment arrangement allow free flow of movement that enables students to work comfortably without interference" and item 3 "cleanliness and orderliness are maintained" ranked second and third respectively with the mean of 3.52 for faculty. This infers that the students believed that light and ventilation are evident and mounted.

## Technical Support

Table 7. Presents the computer laboratory management practices as to technical support.

**Table 7 Computer Laboratory Management Practices as to Technical Support**

Statement	Faculty				Students			
	M	R	VI	QD	M	R	VI	QD
1. faculty is present in the duration of the class.	3.48	2	A	MP	3.16	1	A	MP
2. laboratory facilitator is assigned to assist/monitor computer usage.	3.07	4	A	MP	2.91	4.5	A	MP
3. computer technician is always available for its proper upkcep.	3.50	1	A	VMP	2.97	3	A	MP
4. repair of defective equipment is carried out immediately.	3.29	3	A	MP	3.03	2	A	MP
5. supplies and replacement parts of defective equipment are available.	2.86	5	A	MP	2.91	4.5	A	MP
<b>Average</b>	<b>3.24</b>	<b>A</b>	<b>MP</b>	<b>3.00</b>	<b>A</b>	<b>MP</b>		

Legend:

3.50 – 4.00	Strongly Agree (SA)	Very Much Practiced (VMP)
2.51 – 3.49	Agree (A)	Much Practiced (MP)
1.50 – 2.50	Disagree (D)	Less Practiced (LP)
1.00 – 1.49	Strongly Disagree (SD)	Not Practiced (NP)

*M*–Mean *R*–Rank *VI*–Verbal Interpretation *QD*–Qualitative Description

**Faculty.** Illustrated in the Table, the faculty-respondents have observed that technical support is evident in the computer laboratory as shown in the average mean of 3.24, described as much practiced. This highlights that faculty, laboratory facilitator, computer technician is around when computer instructions/laboratory works are going on and when technical problems or complications occurred, immediate action to address the problem is conducted and technical assistance is provided to both faculty and students to facilitate the teaching-learning process in the laboratory.

**Students.** Seen in the same Table is the average mean of 3.00, described as much practiced for laboratory management practices as to technical support. This points out that the students have a parallel observation with the faculty when it comes to how technical support is being implemented in the computer laboratory. This contention is supported by the individual item which has the description of much practiced.

Table 8. Presents the summary of means on computer laboratory management practices.

Seen in the summary Table that faculty-respondents rated policy implementation (M=3.39), hardware management (M=3.33) and technical support (M=3.24) to be the first three top practices being observed by them in computer laboratory. While the student-respondents have policy implementation (M=3.17) as first, hard-

ware management (M=3.12) as second, and lighting and ventilation (M=3.07) as third.

**Table 8. Summary of Means on Computer Laboratory Management Practices**

Practice	Faculty				Students			
	M	R	VI	QD	M	R	VI	QD
Hardware Management	3.33	2	A	MP	3.12	2	A	MP
Software Management	2.78	6	A	MP	3.00	5	A	MP
Policy Implementation	3.39	1	A	MP	3.17	1	A	MP
Internet Management	2.38	7	D	LP	2.36	7	D	LP
Power Stability	2.94	5	A	MP	3.00	5	A	MP
Lighting and Ventilation	3.15	4	A	MP	3.07	3	A	MP
Technical Support	3.24	3	A	MP	3.00	5	A	MP
<b>Average</b>	<b>3.03</b>	<b>A</b>	<b>MP</b>	<b>2.96</b>	<b>A</b>	<b>MP</b>		

Legend:

3.50 – 4.00	Strongly Agree (SA)	Very Much Practiced (VMP)
2.51 – 3.49	Agree (A)	Much Practiced (MP)
1.50 – 2.50	Disagree (D)	Less Practiced (LP)
1.00 – 1.49	Strongly Disagree (SD)	Not Practiced (NP)

*M*–Mean *R*–Rank *VI*–Verbal Interpretation *QD*–Qualitative Description

The Table generally shows that SSCT's computer laboratories are handled fairly, but it also means that the management activities carried out in the laboratory can also be improved further. Additionally, internet access that has been found to be least handled should be provided.

## CONCLUSIONS

Based on the general findings of the study, it is concluded that effective and proper management of computer laboratories have contribute in developing the knowledge and skills of the students. To be specific, this study concluded that:

1. The computer laboratories in Surigao State College of Technology are well-managed in terms of hardware and software requirements, implementation of laboratory policies, maintaining a stable power supply, and provision of sufficient lighting and ventilation. However, internet management is a source of concerns among faculty and students.
2. There was a consensus among users that the computer laboratories in the college have reliable software for instructional purposes, sufficient supply of electricity, and are comfortable. But the student-users are less confident on the quality of hardware, availability of technical support from an expert, and implementation of laboratory rules and regulations.
3. The holistic implementation of computer lab management is seen as an important factor in facilitating learning by the faculty and students.

## RECOMMENDATIONS

Based on the foregoing conclusions, it is suggested that internet should be more accessible for both faculty and students for it can improve the quality of education in many ways. It opens doorways to a wealth of information, knowledge and educational resources, increasing opportunities for learning in and beyond the classroom. Faculty use online materials to prepare lessons, and students to extend their range of learning especially on this pandemic where social distancing is advised.

## REFERENCES

- Allos, M. (2018). The Importance of Stable Power Supply Retrieved from: <https://www.sollatek.com/the-importance-of-stable-power-supply/>
- Atikka, M. (2014). Computer laboratory. Retrieved from: <https://webartika.manyamfranchise.com/computerpedia/li-vieware/1thecomputerlab>
- Azemi, A. (2015). Teaching computer programming courses in a computer laboratory environment. Proceedings - Frontiers in Education Conference, 2a5.18-2a5.20.
- Beattie, R.M. (Sept. 2016). "The Truth About Tech Support," Electronic School. Retrieved from: <http://www.electronicschool.com/2016/09/0900f3.html>
- Clear, T., J. Whalley, P. Robbins, A. Philpott, A. Eckerda, M. Laakso, and R. Lister. 2011. "Report on the final BRACElet workshop: Auckland University of Technology, September 2010." Journal of Applied Computing and Information Technology 15 (1).
- Choudhury, A (2015). Waterfall Model. <https://www.sdlic.ws/waterfall-model/>
- Denning, P.J., Comer, D.E. (2016). Computing as a discipline. Communications of the ACM, 32(1), 9-23.
- Eckerdal, A., and M. Thuné. 2015. "Novice Java programmers' conceptions of 'object' and 'class', and variation theory." ACM SIGCSE Bulletin 37 (3): 89-93. doi: 10.1145/1151954.1067473
- Fitzgerald, S. (2014). "Five Measures of a Tech-Savvy School District," abstracted from "Taking the 'Total Cost of Ownership' Concept to the Classroom." Multimedia Schools. Retrieved from: <http://www.eschoolnews.org/news/showStory.cfm?ArticleID=2791>
- Hadiwijaya, M. F. (2015). Journal Administer Business: Mathew G. Naugle. Faculty of Administrative Science, Brawijaya University, Riyad.
- Haiyan, D. (2017). Maintenance and Management of Computer Laboratory Equipment. Retrieved from: <https://www.scitepress.org/papers/2015/60215/60215.pdf>
- Hassan, J. (2014). "Energy Efficient Lighting Design for Building", International Conference on Intelligent Systems, Modeling and Simulation, IEEE, Dated 27-29, pp 282-286
- Jeggle, K. (2017). Multimedia design. Retrieved from: <https://www.theartcareerproject.com/careers/multimedia-design/>
- Kelly, P. (2017). Global study stresses importance of public Internet access. Retrieved from: <https://www.washington.edu/news>
- Kent, M. (2017). What can I do with my degree in Multimedia and Digital Arts? Retrieved from: <https://www.kent.ac.uk/ces/student/degree/multimedia/index.html>
- Knox, D., Wolz, U., Joyce, D., Koffman, E., Krone, J., Laribi, A. (2016). Use of laboratories in Computer Science education: Guidelines for Good Practice. SIGCSE Bulletin, Special Edition - Integrating Technology into Computer Science Education, 167-181.
- Liao Xinbin. The management and maintenance of the computer room in Colleges and universities. Journal of Jiujiang Vocational and Technical College. No. 04. (2012).
- Liu Hui, Xu Zhitao, (2015). Management and Maintenance of Vocational School Computer

Room, Science and Technology Innovation Herald.

tion of computer programming skills and maintenance.

McDowell, C., L. Werner, H.E. Bullock, and J. Fernald. 2011. "The impact of pair programming on student performance, perception and persistence." In Proceedings of the 25th international conference on Software engineering, 602–607. Los Alamitos, CA: IEEE Computer Society.

Mitchell, D. (2016). Server Reviews: <http://www.itpro.co.uk/server/reviews>.

Murray, B. (2011). "Tech Support: More for Less." *Technology & Learning Magazine*. Retrieved from: [http://www.techlearning.com/db\\_area/archives/TL/200111/whatworks.html](http://www.techlearning.com/db_area/archives/TL/200111/whatworks.html)

Powers, K., S. Cooper, K.J. Goldman, M. Carlisle, M. McNally, and V. Proulx. 2016. "Tools for Teaching Introductory Programming: What Works?" *ACM SIGCSE Bulletin* 38(1): 560–561. doi: 10.1145/1124706.1121514

Prey, J. C. (2016). Cooperative learning and closed laboratories in an undergraduate Computer Science curriculum. *SIGCSE Bulletin, Special Edition - Integrating Technology into Computer Science Education*, 23-24.

Schatt, S. (2016). *The Wonderful Local Area Networks Online* Stan Schatt, e-Book

Shaw, T. (2016). "How to set realistic tech-support staffing goals," *eSchool News*. Retrieved from: <http://www.eschoolnews.org/news/showStory.cfm?ArticleID=2108>

Speelman, C. (2005). Skill acquisition: History, questions, and theories. *Beyond the learning curve. The construction of mind*. Retrieved from: [www.enactionschool.com/resources/papers/](http://www.enactionschool.com/resources/papers/)

Von Aufschnaiter, C., and S. von Aufschnaiter. 2017. "University students' activities, thinking and learning during laboratory work." *European Journal of Physics* 28 (3): 51–60. doi: 10.1088/0143-0807/28/3/S05

Ying, I. (2013). Online examination system based on JSP and Oracle design and implementa-

# MOBILE LEGENDS IN RELATION TO STUDENTS' STUDY HABITS AND ACADEMIC BEHAVIOR

KRISTINE Q. GALIA, LPT  
Co-authors: ALLAN S. TIEMPO, PhD  
LEANDRO C. TORREON, PhD, JULIUS J. IGOT, EdD, LUZMINDA G. MACHETE  
and PROCESO M. CASTIL, EdD  
Bohol Island State University- Candijay Campus, Cogtong, Candijay, Bohol, Philippines

## ABSTRACT

The study aimed to determine the degree of relationship between the students' purpose of playing Mobile Legends (ML) and their study habits and academic behavior. This study was conducted during the school year 2019 – 2020 in the selected private schools of Bohol Association Of Catholic Schools (BACS) Talibon, Bohol. It included the four (4) secondary schools of Bohol Association of Catholics Schools, Diocese of Talibon during the school year 2019-2020. This study utilized descriptive-correlational research design utilizing purposive sampling technique. This study used a modified descriptive survey questionnaire which is adapted from (Dusaran, et.al 2013 & H. Linton, 1979). The modified research instrument was subjected to validity and reliability tests. The result revealed that the association between playing Mobile Legends (ML) and the study habits and academic behavior were not statistically significant. Likewise, there is no significant relationship between the students' academic behavior and study habit. The researchers concluded that the students' purpose of playing Mobile Legends (ML) has no direct relationship on their study habits and academic behavior. The academic behavior and study habits of the students were not associated significantly with their purpose of playing Mobile Legends (ML). Furthermore, students' academic behavior does not depends on their study habit. The researchers then recommended that school administrators must establish rules and guidelines that regulates use of mobile phones inside the classroom during classes. Parents should limit their children from using mobile phones at homes to ensure that phone usage will not affect the studies of the students. The Local Government Units through Barangay Tanods and Police should closely monitor and implement the curfew hours and impose disciplinary measures to the violators in order to avoid if not minimized students' in playing Mobile Legends (ML) during class hours.

*Keywords: Mobile Legends, Academic Behavior, and Study Habits*

## INTRODUCTION

Since the beginning of time, people have created ways such as games to enjoy the way of living. Until such times, our generation continually grow and technology developing too fast and we have the 21st century students. These are the learners that live with the technology and involved of playing different online games. However, there are lot of games made especially in online games and one of these is the Mobile Legends, which is now very popular among teenagers.

Mobile Legends is an online game which commonly played by teenagers and easily downloaded through mobile phones, tablets and other gadgets. Most of them, it served as their leisure's activity, just for fun only and social interaction but without knowing, there are lot of effects spending too much in the gadgets. However, it has

benefits to the players. In fact, their mind will be active and distinguish different techniques and strategies in playing Mobile Legends and other online games. It helps the player to come up with decisions in tight situations, especially those adventure games that keep the players to be alert, active and strategic.

According to Moonton Technology, the developer of Mobile Legends, the game has racked up over 500 million downloads, and 75 million active players. Also, Mobile Legends is part of the Southeast Asian Games 2019 and will mark the first time that sports will be played as a medal event in a sports competition. In fact, the Philippines has won the gold medal for in the 2019 Southeast Asian Games after Sibol outlasts the Indonesian juggernauts to fulfill the historic win at the Filoil Flying V Arena, San Juan City (Reyes, 2019).



Online gaming is open to individuals particularly the students. They can easily pick up their cellphones and spend more time in playing such online game. Students' spent their time on playing Mobile Legends which generally lose their enthusiasm in school activities that lead them to affect their academic behavior. This is why Mobile Legends has a great influence and become parts of their lives. Mostly of the students', playing Mobile Legends (ML) is highest things that hinder students from concentrating to their studies and effects in their in several ways especially in their study habits. From this perspective, the researcher is prompted to determine the status of playing Mobile Legends to students' study habits and academic behavior during the school year 2019-2020.

## RELATED LITERATURE

Online gaming has emerged as a popular and successful source of entertainment and play for people of all ages, especially for the students. The Theory of Mobile learning (Sharples, Taylor, & Vavoula, 2005) is essential when thinking of the role of mobility and communication in learning environments. This theory states the possible advantage and disadvantage of using mobile phones. Constructivist theories proposed that "knowledge is being actively constructed by the individual and knowing is an adaptive process, which organizes the individual's experiential world". Students bring their own schema (past experiences) into their academics and use it to enhance their learning by gaining more knowledge and build upon their old. In another theory,

The Behaviorist Theory (B.F Skinner, 1977) states that rewarding someone for particular behavior encourage him to behave in the same way in a similar situation. In computer games are sometimes called "Skinner Box" because of the way they offer reward or punishment for the player's behavior. Like the classic experiment, many games require the performance of a repetitive task to achieve some goal or reward. In behaviorist theory, a reward or positive reinforce is anything that increases the frequency of a behavior. Conversely, a punishment or negative reinforce is something that decreases the frequency of a behavior. The strict structure and scheduling of rewards is a classic behaviorism and characterized many games.

However, In Piagets Cognitive learning theory (1936) it describe the change as altering a

learner's mental model. Cognitivist maintain that the mind, thinking and understanding mediate the stimulus and response described by behaviorists. It is more concerned with process than the product and is therefore demonstrated by games than improve reflexes, promote critical thinking or help people learn different patterns of association.

The said theory of learning is legally supported by the DO 83, S. 2003 – Reiteration to DECS order nos. 70, S. 1999 AND 26, S. 2000 state that strictly imposes a ban on the use of cellphones by the students during class hours and teachers and parents should devise ways to educate students on the responsible use of cell phones to prevent them from engaging in misguided and immoral activities immediate dissemination of and compliance with this order is hereby directed.

In addressing the role of online gaming, researchers have found that heavy or excessive use of online gaming tends to lower academic achievement (Kuss & Griffiths et.al., 2012) and decreased sleep quality ( Anderson et.al., 2010). The World Health Organization have included "gaming disorder" as one of the official list of mental health, stating that gaming behavior could qualify as problematic if it interferes significantly in the other areas of people's lives. The gaming behavior could be a disorder if it meets three characteristics: if a person loses control over their gaming habits, if they start to prioritize gaming over many other interests or activities, and if they continue playing despite clear negative consequences (Loria, 2018).

Another study from Goel, Subramanyan, Kamath (2015), the prevalence of internet addiction indicated that those with excessive use internet had high scores on anxiety, depression and anxiety depression. Gamers who play for extended period of time (over 4 hours) and almost every day show a clear signs of addiction. They get restless and irritable if they can't play they also sacrifice their other social activities just to play games and shows that students, especially men spends a huge amount of time playing video games (Craton,2011).

In the Philippines, around half of the 44 million Internet users are children aged 17 years and below (UNICEF, 2016). In addition, study habit is the pattern of behavior adopted by students in the pursuit of their studies that serves as the vehicle of learning. It is the degree to which the student engages in regular acts of studying that are characterized by appropriate studying routines (e.g. reviews of material, frequency of studying sessions, etc.) occurring in an environment that is



conducive to studying. Study attitudes, on the other hand, refers to a student's positive attitude toward the specific act of studying and the student's acceptance and approval of the broader goals of college education (Crede & Kuncel, 2008).

Developing good study habit and attitudes of students towards studies are the contributing factors towards the improvement of one's academic performance. Identifying the factors which has negative effects on one's study habit and attitude is of great help in order to give effective remedial measures, strategies and interventions to improve study habits and attitudes and thus lead to better achievement of scores (Hussain Ch., 2006). In relation to that, "Student vary learning strategies and level of understanding, hence appropriate study habits and disposition in learning is beneficial considering that having better study habit, the better the academic performance" (Kaur & Pathania (2015)". According to, Tumbokon (2018), have emphasized that there are positive and negative effects of gaming to the children. Many scientists and psychologists find that video games can actually have many benefits. The main benefits of playing video games involve enhancing mental skills making kids smart. Video games may actually teach kids high-level thinking skills that they will need in the future.

However, children who play more violent video games are more likely to have increased aggressive thoughts, feelings, and behaviors, and decreased prosocial helping, according to a scientific study. Too much video game playing makes kids socially isolated and even teach kids the wrong values. Though playing video games can help develop certain skills and some values of students, it can certainly lead to negative effects such as social isolation and increased aggression. Research suggests that excessive online gaming may in extreme cases lead to symptoms commonly experienced by substance addicts, namely salience, mood modification, craving, and tolerance (Mozee, 2014) which of course is unhealthy affecting not students' academic also the relationship with family and friends.

In the survey administered by the researchers at Mapua Institute of Technology to the first year student, five out of 16 students confessed that they have lied to their teachers, parents, etc. that they have skipped their classes just to go to a nearby computer shop. They did alibis so that they will be able to cut classes. They also lied about the amount of time spent on the computer. According to Cole and Hooley (2013), examined anxiety and absorption in Problematic Internet

Use (PIU) gamers who played massive-multiplayer online games (MMOs). The researchers also wanted to identify differences between individuals with high or low levels of PIU. They hypothesized that individuals with higher PIU scores would have higher scores on state, trait, and social anxiety. Young (2010) states that the evolution of the video game from a single player game to an interactive multi-player world induces the players to has the ability to control and alter the universe where they are in and via their character they transform these games into "self-contained, three dimensional societies". Over time as the player continues to transform this new world of their online, player's character begins to seep into their out-game life and the brain begins to identify this character as being the true reality.

Although online gaming support some certain skills of the students but it has negative effect especially the behavior and study habits of the students. It is rampant among the secondary schools that they hooked up to online gaming especially in Mobile Legends and they develop a poor study habits and affect their academic behavior which lead to reduced their academic performance. Despite their awareness of the gaming effect especially to their academic performance and behavior, still they continue to do so and not giving too much priority to their studies that can affect their success.

## OBJECTIVES

The study aimed to determine the degree of relationship between playing Mobile Legends (ML) and the students' study habits and academic behavior.

Specifically, this study sought to answer the following questions:

1. What is the profile of the respondents in terms of:
  - 1.1. age;
  - 1.2. sex; and
  - 1.3. year level?
2. What is the status of playing Mobile Legends in terms of:
  - 2.1. frequency; and
  - 2.2. number of hours per day?
3. What is the respondent's assessment on the purpose of playing Mobile Legends?
4. What is the assessment of the respondents on the students' study habits?
5. What is the assessment of the respondents on the students' academic behavior?

6. Is there a significant relationship between playing Mobile Legends and students' study habit?
7. Is there a significant relationship between playing Mobile Legends and students' academic behavior?
8. Is there a significant relationship between the students' academic behavior and study habit?
9. What intervention measures could be proposed on the basis of the findings?

## RESEARCH METHODOLOGY

### Design

To evaluate the status of playing Mobile Legends in relation to the students' study habits and academic behavior the researcher utilized a Descriptive Survey Design Method using a purposive sampling method of the respondents to determine student-respondents' profile, purpose of playing Mobile Legends (ML), assessment of the students' study habits and academic behavior.

### Environment and Participants

This study was conducted during the school year 2019 – 2020 in the selected private schools of Bohol Association Of Catholic Schools (BACS) Talibon, Bohol. It included the four (4) secondary schools of Bohol Association Of Catholic Schools (BACS) namely: Immaculate Academy (IA) located at San Pedro, Duero, Bohol, Saint Joseph Academy (SJA) located at Poblacion, Candijay, Bohol, Santa Monica Institute Inc. (SMI) located at Poblacion, Mabini, Bohol and lastly Holy Child Academy (HCA) located at Poblacion, Ubay, Bohol. A total number of 240 students-respondents, 60- parents-respondents and 40 teachers-respondents.

### Instrument/Tool

In gathering the data for the study, the researchers utilized the descriptive survey design through the use of an adapted questionnaire designed by Dusaran, et.al 2013 and H. Linton 1979, were personally distributed to the participants. The Part I – Profile of the Respondents, the Part II -Status of playing Mobile Legends and for the purpose of Playing Mobile Legends, Part III was the checklist of the status of the students-respondents' study habits. Part IV was the checklist questionnaire of the effect of playing Mobile Legends in relation to their academic behaviour as well as the teacher-respondent questionnaire and the parent-respondents' questionnaire. The results

of the reliability test with Cronbach's Alpha value of .904 which means highly reliable.

### Data Gathering Procedure

The researcher asked permission from the BACS Talibon Superintendent through a letter noted by the Dean of the College of Advanced Studies to conduct this study. Upon approval of the superintendent, the researcher also requested permission from the School's Principal. The researcher distributed the questionnaires to the five (4) selected secondary of BACS Talibon, eight (40) teacher respondents, 240 student respondents and 60 parents respondent. Teachers, students and parent responded on the questionnaires on profile, students' study habits and academic behavior.

### Data Analysis

To determine the degree of association between the students' purpose of playing Mobile Legends, study habits and academic behavior, Pearson's product-moment coefficient of correlation used utilizing the SPSS software.

### The Findings

**Table 1. Profile of Student-Respondents  
N=240**

<b>1.1 Age</b>	<b>Frequency</b>	<b>Percentage (%)</b>	<b>Rank</b>
12-13 years old	33	13.75	4
13-14 years old	27	11.25	5
14-15 years old	60	25.00	2
16-17 years old	81	33.75	1
18-19 years old	35	14.58	3
20-above years old	4	1.67	6
<b>Total</b>	<b>240</b>	<b>100.00%</b>	
<b>1.2 Sex</b>			
Male	180	75.00	1
Female	60	25.00	2
<b>Total</b>	<b>240</b>	<b>100.00%</b>	
<b>1.3 Year Level</b>			
Grade 7	32	13.33	6
Grade 8	35	14.58	4
Grade 9	42	17.50	3
Grade 10	52	21.67	1
Grade 11	33	13.75	5
Grade 12	46	19.17	2
<b>Total</b>	<b>240</b>	<b>100.00%</b>	

Table 1. Illustrates the profile of the student-respondents. As to age, majority of the respondents were in the age bracket of 16-17 years old with the frequency of 81 or 33.75% while, the lowest rank is in the age bracket of 20- above

years old with the frequency of 4 or 1.67%. As to sex, male respondents got the highest rank with the frequency of 180 or 75.00% while female respondents got the lowest rank with the frequency of 60 or 25%. It means that most of the respondents who play online games were male. In terms of year level, majority of the respondents were in the year level of Grade 10 with the frequency of 52 or 21.67% while the lowest rank is in the year level of Grade 7 with the frequency of 32 or 13.33%. It means that Grade 10 level is the turning point of spending and playing online games particularly Mobile Legends. It means that Grade 10 level is the turning point of spending and playing online games particularly Mobile Legends. The study of Craton (2011) shows that students, especially men spends a huge amount of time playing video games.

**Table 2. Status of playing Mobile Legends  
N=240**

2.1. Number of Months Played	Frequency	Percentage (%)	Rank
Below 6 months	105	43.75	2
Above 6 months	135	56.25	1
<b>Total</b>	<b>240</b>	<b>100.00%</b>	
2.2. Number of hours/ day			
Below 2 hours	97	40.42	1
3 hours	38	15.83	3
4 hours	29	12.08	4
5 hours	27	11.25	5
6 hours and above	49	20.42	2
<b>Total</b>	<b>240</b>	<b>100.00%</b>	

Table 2 presents the status of playing Mobile Legends (ML). The result reveals as to number of months, the respondents' played Mobile Legends (ML) above 6 months got the highest rank with the frequency of 135 or more than 56% and respondents' played Mobile Legends below 6 months got the lowest rank with the frequency of 105 or almost 44%. Moreover, respondents' with less than 2 hours of playing Mobile Legends, got the highest rank with the frequency of 97 or 40.42% while 5 hours got the lowest rank with the frequency of 27 or 11.25%. This indicates that most of the students who played Mobile Legends more than an hour per day is playing Mobile Legends (ML) online. Supported by the statement of Goel, Subramanyan and Kamath (2015), that gamers who play for extended period of time (over 4 hours) and almost every day show a clear signs of addiction. They get restless and irritable if they can't play they also sacrifice their other social activities just to play games.

**Table 3. Purpose of playing Mobile Legends  
N=240**

Purpose of Playing Mobile Legends	Weighted Mean	Descriptive Interpretation	Rank
Spend my free time	3.38	Strongly Agree	2
Become famous	2.36	Disagree	18
Relieve my stress	3.15	Agree	5
Enhance my mathematical ability	2.38	Disagree	17
Relieve my anger	2.91	Agree	11
Enhance my visual attention skills	2.97	Agree	9
Exercise my mind	2.92	Agree	10
Gain money	2.41	Disagree	16
Gain friends	3.20	Agree	3
10. To escape from my household responsibility	2.07	Disagree	19
11. To ignore responsibility like homework	1.91	Disagree	20
12. To have fun	3.56	Strongly Agree	1
13. To spend more time in socializing	2.80	Agree	13
14. To ignore my girlfriend	1.76	Disagree	21
15. Develop my leadership skills	2.81	Agree	12
16. To enhance my skills in playing Mobile Legends	3.18	Agree	4
17. To participate in the tournament	2.79	Agree	14
18. To enhance my formulating strategies in playing Mobile Legends	3.03	Agree	7
19. To improve my critical thinking skills.	3.05	Agree	6
20. To enhance my decision making in playing Mobile	3.00	Agree	8
21. To develop my emotional and intellectual skills that support academic achievement.	2.70	Agree	15
<b>Average Weighted Mean</b>	<b>2.78</b>	<b>Agree</b>	

Legend:

Rating Scale	Descriptive Interpretation (DI)
3.25 – 4.00	Strongly Agree (SA)
2.50 – 3.24	Agree (A)
1.75 – 2.49	Disagree (D)
1.00 – 1.74	Strongly Disagree (SD)

Table 3 indicates the respondents' purpose of playing Mobile Legends. The result revealed that the student-respondents purpose of playing Mobile Legends agreed on the item that they want "To have fun" and got the highest rank with the weighted mean of 3.56 while the item "To ignore my girlfriend" got the lowest rank with the weighted mean of 1.76. This means that playing Mobile Legends has been used as a medium for fun and way of enjoyable pastime activity. In addition, playing mobile-online games can make people happy but it leads to low the academic performance. While gaming is an enjoyable pastime

activity, research suggests that excessive online gaming may in extreme cases lead to symptoms commonly experienced by substance addicts, namely salience, mood modification, craving, and tolerance (Wolfling, Grusser and Thalemann, 2008 et al.)

**Table 4. Assessment of Respondents' on the Students' Study Habits**  
N=240

Statement	Weighted Mean	Descriptive Interpretation	Rank
<b>As a student I.....</b>			
study my lessons every day.	2.67	Frequently	14
try to start my homework immediately after classes.	2.51	Frequently	17.5
have specific time to study.	2.76	Frequently	12
have specific place to study.	2.81	Frequently	7.5
am careful to keep up-to-date with my homework.	2.83	Frequently	6
read my notes before i come to class.	2.40	Sometimes	20
find an alternate text, if i have trouble understanding the text.	2.51	Frequently	16
take notes in the class.	2.97	Frequently	3
am careful to copy all the steps or solutions of problems in my notes.	2.79	Frequently	9.5
ask questions when i am confused.	2.98	Frequently	2
review my notes and text before beginning my homework.	2.77	Frequently	11
work problems until i understand them, not just until i get the answers listed in the back of the book.	2.68	Frequently	13
use strategies for effective remembering.	2.91	Frequently	4
develop memory techniques to remember concepts.	2.90	Frequently	5
have study partners in my class.	2.51	Frequently	17.5
take practice tests.	2.32	Sometimes	23
carefully check or rework as many problems or questions as i have during practice tests.	2.53	Frequently	15
note the type of mistakes i made: concept errors, application errors.	2.40	Sometimes	21
exert more effort when i do difficult assignments.	2.79	Frequently	9.5
spend my vacant time in doing assignment or studying my lessons.	2.37	Sometimes	22
study harder to improve my performance when i get low grades.	3.08	Frequently	1
spend lesser quality of time with my friends during school days to concentrate on my studies.	2.47	Sometimes	19
prefer finishing my studying and my assignments first before playing online games.	2.81	Frequently	7.5
<b>Average Weighted Mean</b>	<b>2.64</b>	<b>Frequently</b>	

Legend:

Rating Scale	Descriptive Interpretation (DI)
3.25 – 4.00	Always (A)
2.50 – 3.24	Frequent (F)
1.75 – 2.49	Sometimes (S)
1.00 – 1.74	Never (N)

Table 4 represents the assessment of the students' the study habits. The students agreed on item "I study harder to improve my performance when I get low grades" got the highest rank with

the weighted mean of 3.08. While the item "I take practice test" got the lowest rank with the weighted mean of 2.32. This means that playing Mobile Legends has direct effect on the study habits of the student's respondents however the students study harder to improve the academic performance in school. Developing good study habit and attitudes of students towards studies are the contributing factors towards the improvement of one's academic performance.

Identifying the factors which has negative effects on one's study habit and attitude is of great help in order to give effective remedial measures, strategies and interventions to improve study habits and attitudes and thus lead to better achievement of scores (Hussain Ch., 2006). According to Dockrill (2012), stated that students who regularly spend time playing online games are developing analytical and problem-solving skills that can also help them in their schoolwork. He also said that when you play online games you're solving puzzles to move to the next level and that involves using some of the general knowledge and skills in maths, reading, and science that you've been taught during the day. Moreover, According to Ordain's (2017) study showed that respondents agreed that playing online games can affect your study or your academic performance in school. Though they are fine playing, but it has a negative impact especially on their health. This only means that students are aware of the negative effects of gaming to their studies and their health but still they chose to continue playing, and prioritizing it than their other school works.

**Table 5. Assessment of the Respondents on the Students' Academic Behavior**  
N = 240

Statement	Weighted Mean	Descriptive Interpretation	Rank
1. My self-esteem is high	2.88	Moderately Evident	10.5
2. I'm not easily upset	2.67	Moderately Evident	17.5
3. I involve in different school activities	2.82	Moderately Evident	13
4. Non-violators of school rules	2.73	Moderately Evident	16
5. I'm obedient and respectful	3.05	Moderately Evident	3
6. I am helpful and responsible	2.98	Moderately Evident	6
7. I am tactful in my actions and words	2.74	Moderately Evident	15
8. I'm optimistic and joyful	3.12	Moderately Evident	2
9. I accept failures and learned from it	3.17	Moderately Evident	1
10. I'm gentle and humble	2.92	Moderately Evident	8
11. I am eager and enthusiastic	2.83	Moderately Evident	12
12. Inspired to socialize outside and inside the room	2.88	Moderately Evident	10.5
13. I develop my spiritual, emotional and moral aspects.	2.95	Moderately Evident	7
14. I have a positive sense of 'self-efficacy' about the academic content area.	2.91	Moderately Evident	9

15. I am responsible for my actions	2.99	Moderately Evident	5
16. Showing sense of empathy	2.78	Moderately Evident	14
17. I am easily distracted.	3.01	Moderately Evident	4
18. Express low self esteem	2.42	Less Evident	19
19. Display/showing my negative attitude	2.19	Less Evident	21
20. Disrespectful towards my peers and teachers	1.89	Less Evident	24
21. Physically aggressive	2.22	Less Evident	20
22. Easily influenced by peer pressure.	2.67	Moderately Evident	17.5
23. Displays obscene gestures	1.98	Less Evident	22
24. Use bad language towards peers/ teachers	1.68	Not Evident	25
25. Leaving the classroom without permission.	1.95	Less Evident	23
<b>Average Weighted Mean</b>	<b>2.66</b>	<b>Moderately Evident</b>	

Legend:

Rating Scale	Descriptive Interpretation (DI)
3.25 – 4.00	Highly Evident (HE)
2.50 – 3.24	Moderately Evident (ME)
1.75 – 2.49	Less Evident (LE)
1.00 – 1.74	Not Evident (NE)

Table 5 represents the assessment of the respondents on the students' academic behavior. It specifies the behaviour of the students which is observed by the parents and teachers. As shown in the table, that students agreed on the statement that "I accept failures and learned from it", got the highest rank with the weighted mean of 3.17 with the descriptive interpretation of Moderately Evident while the statement got the lowest rank is "Use bad language towards peers and teacher with the weighted mean of 1.68 with the descriptive interpretation of Not Evident. It is clear here that students respondents and clearly observed that any failure or negative result from their activity like playing Mobile Legends they will accept the consequences whole heartedly and learned a lesson from it in which they can balance between their studies and playing Mobile Legends, which served as their leisure time. Moreover, students who played Mobile Legends is easily distracted because their minds cannot focus on the academic aspect and just thinking on the games every time.

Tumbokon (2018), has emphasized that there are positive and negative effects of gaming to the children. The main benefits of playing video games involve enhancing mental skills making kids smart. Video games may actually teach kids high-level thinking skills that they will need in the future. However, children who play more violent video games are more likely to have increased aggressive thoughts, feelings, and behaviors, and decreased prosocial helping, according to a scientific study. Too much video game playing makes kids socially isolated and even teach kids the wrong values.

**Table 6 Relationship Between the Assessment of the Respondents on the Purpose of Playing Mobile Legends and Students' Study Habit**  
N = 240

Playing Mobile Legends and...	r	p-value	Interpretation	Decision
Students' Study Habit	0.110	0.088	Not Significant	Failed to Reject Ho

\*Correlation is significant at 0.05 level (2-tailed)

Table 6 illustrates the test of relationship between the respondents' assessment on the purpose of playing Mobile Legends and the students' study habit. The result depicted that there is no significant relationship between the students' study habit and their purpose of playing Mobile Legends since the computed correlation value of 0.110 with the p-value of 0.088 which is larger than 0.05 level of significance, thus failed to reject the null hypothesis. This implies that purpose of playing Mobile Legends have no direct influence to students' study habits. This further denotes that students' study habits were not affected by playing Mobile Legends (ML). According to Hussain Ch. (2006) which states that playing Mobile Legends (ML) has no negative effects on students' study habit.

**Table 7. Relationship Between the Assessment of the Respondents on the Purpose of Playing Mobile Legends and Students' Academic Behavior**  
N = 240

Playing Mobile Legends and...	r	p-value	Interpretation	Decision
Students' Academic Behavior	0.210	0.001	Significant	Reject Ho

\*Correlation is significant at 0.05 level (2-tailed)

Table 7 clarifies the test of relationship between the respondents' assessment on the purpose of playing Mobile Legends and the students' academic behavior. The result disclosed that there is sufficient evidence of a significant relationship between the students' academic behavior and their purpose of playing Mobile Legends since the computed correlation value of 0.210 with the p-value of 0.001 which is lesser than 0.05 level of significance, thus the null hypothesis is rejected. This infers that playing Mobile Legends (ML) has direct influence on students academic behavior. Moreover, those students' who spent a lot of time in playing Mobile Legends( ML) were observed to have changes in their academic behavior. However, moderate engagement in gaming can lead to improved performance in an academic setting (Skoric et.al.,2009). They found a positive correlation between game play and English test scores,



which suggests that gaming can actually lead to better test scores.

**Table 8. Relationship Between the Students' Academic Behavior and Study Habit**  
N = 240

Academic Behavior and...	r	p-value	Interpretation	Decision
Students' Study Habit	0.260	<0.001	Significant	Reject Ho

\*Correlation is significant at 0.05 level (2-tailed)

Table 8 shows the test of relationship between the students' academic behavior and their study habit. The result revealed that there is sufficient evidence of a significant relationship between the students' academic behavior and their study habit since the computed correlation value of 0.260 with the p-value of <0.001 which is lesser than 0.05 level of significance, thus the null hypothesis is rejected. This implies that when students spend more time in studying they will achieve and manifested good in their academic behavior thus perform well in school. In short, as the students' study habits improves, the academic behavior of the students will become better. In addition, study habit is the pattern of behavior adopted by students in the pursuit of their studies that serves as the vehicle of learning. It is the degree to which the student engages in regular acts of studying that are characterized by appropriate studying routines and thus help improve students' academic behavior (Crede and Kuncel, 2008).

### CONCLUSIONS

In the light of the findings presented, the following conclusions were formulated by the researchers.

The purpose of students in playing Mobile Legends (ML) has no direct relationship on their study habits and academic behavior. Academic behavior and study habits of the students were not associated significantly with their purpose of playing Mobile Legends. Furthermore, students' academic behavior does not depends on their study habit

### RECOMMENDATIONS

Based on the findings and conclusions, the researcher arrived at the following recommendations:

1. School administrators must establish rules and guidelines that regulates use of mobile phones inside the classroom during classes.
2. Teachers should strictly implement the rules and guidelines in using mobile phones inside the classroom.
3. Parents should limit their children from using mobile phones at homes to ensure that phone usage will not affect the studies of the students as well as hindering them from doing their responsibilities at homes.
4. Students should know their limitation and consequences from too much playing Mobile Legends and know the priority particularly in school works.
5. The Local Government Units through the Barangay Tanods and Police should closely monitor and implement the curfew hours and impose disciplinary measures to the violators in order to avoid if not minimized students in playing Mobile Legends (ML) and make an ordinance to the proprietor of computer shops or computer cafe to regulate and impose disciplinary actions and not to accommodate students during class hours.

### BIBLIOGRAPHY

- Anand V. A., (2007). *Study of time management: the correlation between video game usage and academic performance markers*. *Cyber Psychology & Behavior* 2007; 10:5529
- Anderson, C. A., & Warburton, W. A. (2012). *The impact of violent video games: An overview*. In W. Warburton & D. Braunstein (Eds.), *growing up fast and furious: Reviewing the impacts of violent and sexualized media on children* (pp. 56–84). Annandale, Australia: Federation Press.
- B.F. Skinner, (1953). *Science and human behavior*, Macmillan, New York.
- Cole, S. H., & Hooley, J. M. (2013). *Clinical and personality correlates of MMO gaming: Anxiety and absorption in problematic Internet use*. *Social Science Computer Review*, 31(4), 424-436.
- Craton, Jonathan (2011). *The effect of videogames on student achievement*. <http://www.acsd.org>
- Crede, M. and Kuncel, N. (2008). *Study habits*



- meta-analysis*, Perspectives on Psychological Science in Press, Vol. 3 (6), 425-453.
- Dusaran, L., Gultiano, M., Bual, W. & Tiempo, A. (2013). *Playing dota in relation to the study habits of the male students in the college of teacher education*. Unpublish Thesis Bohol Island State University, Candijay Campus, Cogtong, Candijay, Bohol.
- Goel, Subramanyam, Kamath. (2015). *A study on the prevalence of Internet*. Retrieved August 4, 2018, <https://www.researchgate.net/publication/245030039>.
- Griffiths, M. D. (2012). *Internet gaming addiction: A systematic review of empirical research*. International Journal of Mental Health and Addiction, 10(2), 278–296.
- Hussain, Abid Ch. (2006). *Effect of Guidance Services on Study Attitudes, Study Habits and Academic Achievement of Secondary School students*. Bulletin of Education & Research June 2006, Vol. 28, No. 1, pp. 35-45
- Kaur, Amandeep & Pathania, Raj (2015). *Study habits and academic performance among late adolescents*. Department of Human Development, College of Home Science, CSKHPKV, Palampur, Himachal Pradesh, India. <http://krepublishers.com>
- King D, Delfabbro P, Griffiths M. *Video game structural characteristics: A new psychological taxonomy*. International Journal of Mental Health and Addiction. 2010; 8:90-106.
- Lucido, P. (2012). *Educational Technology 2*. Cubao, Quezon City: Lorimar Publishing Inc.
- Kuss, D. J., & Griffiths, M. D. (2012). *Internet gaming addiction: A systematic review of empirical research*. International Journal of Mental Health and Addiction, 10 (2), 278–296.
- Kuss, D & Fernandez, O. (2016). *Internet Addiction and Problematic Internet use: a systematic review of clinical research*. Nottingham Trent University Burton St. Nottingham NG1 HBU, United Kingdom: Baishideng Publishing Group Inc.
- Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). *Social media and mobile Internet use among teens and young adults*. Retrieved from <http://pewinternet.org/Reports/2010/Social-Media-and-Young-Adults.aspx>
- Loria, Kevin (2018). *How playing video games affects your body and brain*. <https://www.businessinsider.com>
- Moze, Cristian (2014). *Effects of playing online games towards the academic performance*. <http://prezi.com>
- Reyes, M., 2019. *2019 SEA Games: Philippines bags gold in Mobile Legends: Bang Bang*. <https://www.mineski.net/news/2019-sea-games-esports-mobile-legends-gold-philippines>. Retrieved December 9, 2019.
- Sharples, M., Taylor, J., & Vavoula, G. (2005). *Towards a theory of mobile learning*. University of Birmingham, UK.
- Skoric et. al 2009, *Children and Video Games: Addiction, Engagement, and Scholastic Achievement, cyber psychology and behavior*, vol.12, no. 5
- Tumbokon, Ronaldo (2018). *Positive and negative effects of video games*. <https://www.raisesmartkid.com>
- UNICEF (2016c). *Globe, UNICEF Philippines, Ateneo Sign MoU, Online child protection*.
- U.S. Children's Online Privacy Protection Act (COPPA)
- Wolfling K, et. al. 2008, *Computer game addiction: a psychopathological symptom complex in adolescence*.
- Young, K.S., 2010. *Understanding online gaming addiction and treatment issues for adolescents*. The center for internet addiction recovery [e-journal] Available through: [Netaddiction.com](http://Netaddiction.com)

# INFLUENCE OF TEACHERS' PROFESSIONAL, INTERPERSONAL, INTRAPERSONAL SKILLS ON TEACHING PERFORMANCE

MARY MATER B. BERGANTIN, LEANDRO C. TORREON  
ALLAN S. TIEMPO, JULIUS J. IGOT, PROCESO M. CASTIL, LUZMINDA G. MACHETE  
Department of Education- District of Guindulman, Bohol, Philippines  
Bohol Island State University – Candijay Campus,  
Cogtong, Candijay, Bohol, Philippines

## ABSTRACT

The study aimed to determine the influence of teachers' professional, interpersonal and intrapersonal skills to their teaching performance in Guindulman District, Division of Bohol for the School Year 2019-2020. This descriptive-correlation study used the questionnaire adapted from Joseph (2013) as the main tool in gathering the data together with the documentation of the teacher-respondents classroom observation rating. There was a total of one hundred fifty-eight (158) respondents, comprising one hundred forty-eight (148) teachers and ten (10) school heads. The results revealed that there was no significant relationship between the teachers' professional, interpersonal and intrapersonal skills and their profile as to highest educational attainment and teaching experience. However, there was a significant relationship between the teachers' teaching performance and their professional skills, similarly with their interpersonal skills, as well as their intrapersonal skills. Therefore, it was concluded that teachers' teaching skills were not significantly influenced by their highest educational attainment and years of experience. Teachers uphold on their commitment to their profession and ability to handle their selves. Moreover, teachers' professional, interpersonal and intrapersonal skills greatly influence teachers teaching performance. The better the teachers' professional, interpersonal, and intrapersonal skills mean the higher the teaching performance.

*Keywords: Influence, Professional Skills, Interpersonal Skills, Intrapersonal Skills, Teaching Performance*

## INTRODUCTION

In the teaching-learning process, the teachers play a valuable role. Teachers are best known of educating the students placed in their care using their knowledge, skills and abilities effectively. Teaching skills are essential for the purpose of effective teaching learning process in every institution. Thus, effective teaching is the result of teacher's skills and competence.

Undoubtedly, teachers are equipped with knowledge and different qualities to deliver teaching learning process. As professionals, they perform tasks and fulfill their duties as expected. However, effective teaching involves more than expertise in academics but also social processes each day. They must be able to interact with the

students and help them understand new perspectives. But, over the past years, teaching has become increasingly stressful.

According to Greenberg, Brown and Abenavoli (2016), teaching is one of the most stressful occupations in the U.S. High levels of stress are affecting teacher health and well-being, causing teacher burnout, lack of engagement, job dissatisfaction, poor performance, and some of the highest turnover rates ever.

In addition, it is stated by Esguerra (2018) that the chronically overworked state of public-school teachers in the Philippines is well-known. The workload of public-school teachers is not only limited to teaching but also to other nonteaching tasks. Given this workload, actual teaching is increasingly being sidelined by the multitude of

other responsibilities and roles that teachers play. It is also observed locally. Teachers have ancillary tasks aside from teaching and they might have personal struggles within their selves; issues at home and in the workplace, which may influence their intrapersonal and interpersonal skills and that may affect the teaching learning process.

Stress is a feeling of emotional or physical tension of one's body's reaction to a challenge or demand. Thus, a positive internal dialogue occurs within the mind and initiates an appropriate reaction and attitude as far as Intrapersonal skills are concern. A teacher with intrapersonal skill learns to cope and has knowledge of one's self through reflection. It is important to help individuals to mature in social context that also develops interpersonal skills and professional skills.

Teachers must have a deep understanding on how their interpersonal and intrapersonal skills influence teaching. This prompted the researcher to conduct a study on influence of professional, interpersonal and intrapersonal skills on teachers' teaching performance among the teachers in Guindulman District of the province of Bohol. For whatever findings may result to proper dissemination and adaptation to help the teachers continue improve their performance and effectiveness.

## LITERATURE BACKGROUND

Teachers play a very important role in the teaching – learning process. They possess number of skills in the teaching profession. However, teaching skills vary from very broad and general skills such as planning of lessons to very specific skills, such as the appropriate length of time to wait for pupil to answer a question in a particular situation. So, it is somehow difficult to identify a list of teaching skills (Dhillon, 2014). Although there are quite a number of teachers' skills, the present study focuses on teachers' professional, interpersonal, and intrapersonal skills in general.

According to Ko, Sammons, and Bakkum, (2014), teachers teaching performance and effectiveness is generally referred to in terms of a focus on student outcomes and the teacher behaviors and classroom processes that promote better student outcomes. Significantly, teachers equipped with the right skills inspire and influence the live of students. They are instruments who can ignite brilliant thoughts in students, helping them discover, and develop their potential and skills.

Professional skills refer to the skills that teachers possess in order to be successful in their professional practice. Teachers develop skills over time through best practices shared together with other teachers, continuing education and classroom experience.

Interpersonal skills are used to communicate and interact with other people, both individually and in groups. It includes variety of skills that may center on communication which involves listening and speaking as well as reading and writing

Teaching is not limited to skills, but it also involves expertise and values. Moreover, becoming an effective teacher is a complex process that is continuous throughout the teacher's professional life. It requires the continuous development of his personal growth and the honing of his professional competencies. An effective teacher reflects, becoming sensitive to her own problems and those of her profession and students. He solves problems to the best knowledge he can produce and becomes more competent in handling one problem after another. The sense of efficacy derived from successful problem-solving results to self-esteem and greater commitment to effective teaching. He must not only rely on her professional competence or technical knowledge. He needs to continuously reflect on her attitudes, beliefs, and behavior that affect teaching-learning process. The learners will learn effectively if they are motivated to be involved and to take and to take responsibility for their own learning (Gavino, 2013).

In the study of Angeles (2012) on "Teaching Efficacy, Interpersonal, Intrapersonal Skills and Teaching Performance in the Tertiary School", result shows that there is a relationship between teaching efficacy and teachers' intrapersonal skills. The teachers perceived efficacy as directly and indirectly influenced by their intrapersonal skills particularly their self- regard, self- knowledge, self- discipline, emotional capability, time management capacity and setting priorities. Thus, the better the teacher's intrapersonal skills are, the higher is his or her teaching efficacy.

The Multiple Intelligence Theory (MI) was developed by Gardner (1983), this theory maintains that each person possesses several intelligences which are used to carry out specific tasks. This theory is important to education because teachers see more frequently that students learn in different ways. He defined seven intelligences. Those first seven intelligences are: Interpersonal (appreciates group work), Intrapersonal (prefers

working alone), Kinesthetic (needs movement), Linguistic/Verbal (understanding through speaking), Logical/Mathematical (uses numbers), Musical (learns through rhythm and music), and Spatial (visual understanding) (Concept to Classroom, 2004).

The theory proposes that "one is able to know the world through language, logical-mathematical analysis, spatial representation, musical thinking, the use of the body to solve problems or to make things, an understanding of other individuals and an understanding of ourselves. Where individuals differ is in the strength of these intelligences and the ways in which such intelligences are invoked and combined to carry out different tasks, solve diverse problems and progress in various domains." . Morgan (2014) supports Gardner's theory. Morgan's research indicated that differentiated instruction benefits all students, but must be presented by well-prepared, experience and knowledgeable teachers.

## OBJECTIVES OF THE STUDY

The study aimed to determine the influence of professional, interpersonal, and intrapersonal skills on teaching performance of the teachers in Guindulman District. This study further sought to answer the following questions:

1. What is the profile of the teacher- respondents in terms of highest educational attainment; teaching experience; and relevant trainings/ seminars attended?
2. What is the assessment of the respondents on teachers' professional skills?
3. What is the assessment of the respondents on teachers' interpersonal skills?
4. What is the assessment of the respondents on teachers' intrapersonal skills?
5. What is the assessment of the school head respondents on teachers teaching performance using the classroom observation tool?
6. Is there a significant relationship between the teachers' skills and their profile in terms of highest educational attainment; and teaching experience?
7. Is there a significant relationship between the teachers' teaching performance and their professional skills; interpersonal skills; and intrapersonal skills?

## RESEARCH METHODOLOGY

### Design

To assess the influence of professional, interpersonal, and intrapersonal skills on teachers' teaching performance, the researcher used the descriptive – correlation survey method. A documentation of the teacher-respondents classroom observation rating and a survey with the aid of a questionnaire was used to gather the factual information from the respondents.

### Environment and Participants

The locale of this study was the Guindulman District in the third congressional district of Bohol, Philippines. Guindulman is situated in the eastern part of the province of Bohol and forming a district of the Department of Education. The respondents subjected in this study were the public elementary school teachers in their respective school. There were a total of 148 elementary school teachers and ten (10) school head- respondents.

### Instrument

The researcher used a questionnaire as the main tool in gathering data was adopted from Joseph (2013) on the study entitled "Teacher Effectiveness and Professional Competency among Higher Secondary School Teachers in Kottayam District, Kerala". The questionnaire was composed of two parts: Part I consisted of the profile of the teachers including their highest educational attainment, teaching experience and relevant training/ seminars attended. Part II consisted of thirty (30) items on professional, interpersonal and intrapersonal skills of the respondents. For the documentation, the researcher asked a copy of the respondents' first and second quarter classroom observation rating that contains indicator on how well the teacher performs during the classroom observation.

### Data Gathering Procedure

The researcher secured first the approval from the Dean of the College of Advanced Studies and official permit from the Superintendent of the Department of Education, the Public Schools District Supervisor of Guindulman District and the School Head of each school to conduct this study. Likewise, the researcher asked permission and explained the purpose of this study to the teacher-respondents. Questionnaires were then personally distributed. The respondents were given ample time to answer the survey questions. The an-

swered questionnaires were then retrieved; while the rated classroom observation for the first and second quarter were documentarily gathered from the teacher respondents and was treated with confidentiality.

### Data Analysis

To determine the profile of the respondents and the frequency of their answers on the listed items in the questionnaire, the percentage formula was used. It is derived by dividing the frequency of responses by the number of cases and then multiplying the dividend by 100,

The researcher used the weighted mean formula to calculate the average value of responses to items in the questionnaire.

The Chi – Square test of independence was used to determine the relationship between the teachers’ profile and the teachers’ skills.

To determine the relationship between the teachers’ teaching performance and their professional skills, interpersonal skills and intrapersonal skills, the Spearman Rank Order Coefficient Correlation (rs) formula was used:

## RESULT AND DISCUSSIONS

This study was conducted among the elementary teachers and school heads of Guindulman District, Guindulman, Bohol. The findings are herein presented and analyzed considering the various aspects of the research problem.

As to highest educational attainment, the table reflects that majority of the teacher – respondents were Bachelor’s Degree Graduate with the frequency of seventy – two (72) or 48.65 % of the total sample size. Teachers with master’s degree unit were forty – one (41) or 27.70 % and 18.92 % acquires complete academic requirements in masters’ degree. However, only five (5) graduated on their masters’ degree, two (2) have Ph.D./ Ed.D. units and none hold a Doctorate degree. This implies that majority of the teacher respondents have their basic qualification in the teaching profession and there are a growing number of teachers who continues to pursue advance studies.

On the same table, in terms of respondents’ teaching experience, it shows that teachers teaching 20 years above and 3 years below have the highest frequency of thirty – five (35) or 23.65 % and twenty – six or 17.57% respectively. This implies that large number of the teachers in Guindulman District are rich in teaching experience.

**Table 1. Profile of the Teacher-Respondents**  
N = 148

<b>1.1 Highest Educational Qualification</b>	<b>F</b>	<b>(%)</b>	<b>Rank</b>
Bachelor’s Degree Graduate	72	48.65	1
Graduate with Master’s Degree Unit	41	27.70	2
Master’s Degree CAR	28	18.92	3
Master’s Degree Graduate	5	3.38	4
With Ph D/ Ed D Units	2	1.35	5
With Ph D/ Ed D Graduate	0	0.00	6
<b>Total</b>	<b>148</b>	<b>100%</b>	
<b>1.2 Teaching Experience</b>			
3 years and below	26	17.57	2
4 – 6 years	21	14.19	3
7 – 9 years	20	13.51	4
10 – 12 years	17	11.49	6
13 – 15 years	11	7.43	7
16 – 19 years	18	12.16	5
20 years and above	35	23.65	1
<b>Total</b>	<b>148</b>	<b>100%</b>	
<b>1.3 Relevant Trainings/ Seminars Attended</b>			
Mass Training of Teachers on the K to 12 Basic Education Program	127	85.81	2
Seminar-Workshop on the Contextualization and Enhancement Skills and Competencies in Teaching	103	69.59	4
Training Workshop on Inclusive Education	71	47.97	5
Learning Action Cell	107	72.3	3
Moral Values/ Formation Seminar for Public School Teachers	139	93.92	1
Addressing Mental Health Issues in the School Setting	50	33.78	6

It is also indicated on table 1 that teachers most attended trainings and seminars with more than 50% of the sample size were namely: Moral Values/Formation Seminar for Public School Teachers with the frequency of one – hundred thirty – nine (139); Mass Training of Teachers on the K to 12 Basic Education Program with one – hundred twenty – seven (107); Learning Action Cell ( LAC ) with one – hundred seven (107); and Seminar – Workshop on the Contextualization and Enhancement Skills and Competence in Teaching with one – hundred three (103). Meanwhile, the Training Workshop on Inclusive Education and Addressing Mental Health Issues in the School Setting has less than 50% of the respondents’ attended seminar.

The implication of this is that teacher - respondents are provided with trainings and seminars by the Department of Education wherein they will become exposed and are more knowledgeable in delivering the teaching – learning process. Further, teachers will have the opportunity to grow professionally, be equipped and continue develop necessary skills that contribute effectiveness in teaching.

The table shows that the teachers’ professional skills are maintained and developed through attending training programs and orientation courses to equip with abundant knowledge, they are aware on how to encourage students, being resourceful with up-to-date knowledge and maintains general approach. It signifies that the school continues offering professional assistance to the elementary teachers to broaden and strengthen their knowledge on their fields. This further entails that teacher-respondents are professionally skilled for carrying out their responsibilities and duties as viewed by their school heads.

**Table 2. Respondents’ Assessment on Teachers’ Professional Skills  
N1 = 10; N2 = 148**

Statement	School Heads			Teachers			Overall		
	WM	VI	Rank	WM	VI	Rank	WM	VI	Rank
I/The teacher.....									
possess commitment to job	3.90	HM	4.5	3.82	HM	1	3.86	HM	2
being resourceful with up-to-date knowledge	3.80	HM	8.5	3.49	HM	10	3.65	HM	9.5
maintains good general approach	3.80	HM	8.5	3.64	HM	5	3.72	HM	6.5
possess skill to help the students in acquiring good study habits and work pattern	3.90	HM	4.5	3.71	HM	3	3.80	HM	3.5
successfully teaches with clear cut objectives	3.90	HM	4.5	3.53	HM	8	3.71	HM	8
motivates the students by providing new learning activities	3.80	HM	8.5	3.66	HM	4	3.73	HM	5
equipped with teaching competencies in teaching	3.90	HM	4.5	3.54	HM	7	3.72	HM	6.5
gets benefited by attending training programs and orientation courses to equip with abundant knowledge	4.00	HM	1.5	3.74	HM	2	3.87	HM	1
encourages in planning of co- curricular activities for students	4.00	HM	1.5	3.61	HM	6	3.80	HM	3.5
creative in delivering the lessons	3.80	HM	8.5	3.50	HM	9	3.65	HM	9.5
Average Weighted Mean	3.88	Highly Manifested	3.63	Highly Manifested	3.75	Highly Manifested			

Legend:

Rating Scale	Verbal Interpretation (VI)
3.25 – 4.00	Highly Manifested (HM)
2.50 – 3.24	Moderately Manifested (MM)
1.75 – 2.49	Fairly Manifested (FM)
1.00 – 1.74	Poor Manifested (PM)

**Table 3. Respondents’ Assessment on Teachers’ Interpersonal Skills  
N1 = 10; N2 = 148**

Statement	School Heads			Teachers			Overall		
	WM	VI	Rank	WM	VI	Rank	WM	VI	Rank
I/The teacher..									
speaks with clarity and good modulation	4.00	HM	2.5	3.67	HM	7	3.83	HM	4
successfully expresses what he intends to convey	3.80	HM	7	3.59	HM	10	3.70	HM	10
enables pupils to learn by active involvement	3.90	HM	5	3.64	HM	9	3.77	HM	6
maintains cordial relationship with students	3.70	HM	9.5	3.75	HM	4.5	3.73	HM	9
likes and encourages teamwork	4.00	HM	2.5	3.75	HM	4.5	3.88	HM	1.5
encourages slow learner with the help with the help of other members of the group	4.00	HM	2.5	3.72	HM	6	3.86	HM	3
develops students’ interest in the lesson	4.00	HM	2.5	3.76	HM	3	3.88	HM	1.5
being social and amicable with students	3.80	HM	7	3.66	HM	8	3.73	HM	8
maintains good relationship with the colleagues	3.80	HM	7	3.81	HM	2	3.81	HM	5
maintains cordial relationship with the parents of the pupil	3.70	HM	9.5	3.82	HM	1	3.76	HM	7
Average Weighted Mean	3.87	Highly Manifested	3.72	Highly Manifested	3.79	Highly Manifested			

Legend:

Rating Scale	Verbal Interpretation (VI)	Weighted Mean (WM)
3.25 – 4.00	Highly Manifested (HM)	
2.50 – 3.24	Moderately Manifested (MM)	
1.75 – 2.49	Fairly Manifested (FM)	
1.00 – 1.74	Poorly Manifested (PM)	

Table 3 portrays respondents’ assessment on teachers’ interpersonal skills. As an overall assessment, liking and encouraging teamwork and developing students’ interest in the lessons have the highest weighted mean 3.88 with a verbal interpretation of “Highly Manifested”. However, the teachers who successfully express what he intends to convey has the lowest weighted mean of 3.70, still interpreted as “Highly Manifested”. The result denotes that the respondents have their assessment relatively, and that the teacher- respondents possess high interpersonal skills. It denotes further that the teachers maintain good relationship to the parents and exhibits their interper-



sonal skills in developing the students' interest and build student's interpersonal skills through teamwork.

Table 4 demonstrates the respondents' assessment on teachers' intrapersonal skills. It manifests that the school heads are aware how the teachers deal themselves within and how they manage and control emotions professionally and personally. Further, it indicates that the teacher-respondents have flexible intrapersonal skills. They have a deep knowledge and understanding about what is going on their own or self-awareness.

Teachers should be taught to manage their emotional aspect to effectively in working misbehaving students. They create a classroom culture that is both safe and inviting and are able to effectively manage their classrooms. As a result, they foster a deep sense of stability which promotes greater student learning (Corcoran, 2017).

**Table 4. Respondents' Assessment on Teachers' Intrapersonal Skills**  
N1 = 10; N2 = 148

Statement	School Heads			Teachers			Overall		
	WM	VI	Rank	WM	VI	Rank	WM	VI	Rank
I/The teacher.....									
accepts criticism or recognition gracefully	3.50	HM	9.5	3.76	HM	1	3.63	HM	7
feels delighted to teach subject, in which he is interested	4.00	HM	1	3.72	HM	4	3.86	HM	1
maintains sound emotional adjustment	3.60	HM	7	3.55	HM	9	3.57	HM	9.5
inculcates enthusiasm and interest in the learner	3.60	HM	7	3.71	HM	5	3.65	HM	6
cooperates with the students to discuss their personal problems	3.80	HM	2.5	3.63	HM	7	3.71	HM	3
have emotional stability	3.80	HM	2.5	3.56	HM	8	3.68	HM	4
admits my mistakes pointed out by students willingly	3.60	HM	7	3.74	HM	2.5	3.67	HM	5
have enough self confidence	3.70	HM	4.5	3.43	HM	10	3.57	HM	9.5
readily accepts new strategies of learning by attending seminar and trainings	3.70	HM	4.5	3.74	HM	2.5	3.72	HM	2
separates personal problem with work	3.50	HM	9.5	3.68	HM	6	3.59	HM	8
Average Weighted Mean	3.68	Highly Manifested		3.65	Highly Manifested		3.67	Highly Manifested	

Legend:  
Rating Scale Verbal Interpretation (VI) Weighted Mean (WM)  
3.25 – 4.00 Highly Manifested (HM)  
2.50 – 3.24 Moderately Manifested (MM)  
1.75 – 2.49 Fairly Manifested (FM)  
1.00 – 1.74 Poor Manifested (PM)

Table 5 reveals the teacher-respondents' teaching performance. As shown in the table, out of one hundred forty-eight (148) teachers, the one hundred thirty-four (134) or 90.54 % of them got an "outstanding" and fourteen (14) or 9.46 % were rated "very satisfactory". This implies that teachers are rated highly in terms of their effectiveness in delivering the lessons.

**Table 5. Teacher - Respondents' Teaching Performance**  
N = 148

Rating	Descriptor	Frequency	Percentage (%)	Rank
4.600 - 5.000	Outstanding	134	90.54	1
3.600 – 4.599	Very Satisfactory	14	9.46	2
2.600 – 3.599	Satisfactory	0	0	4
1.600 – 2.599	Unsatisfactory	0	0	4
1 – 1.599	Poor	0	0	4
Total		148	100%	

In the case of the data result, it signifies that DepEd has made a great move in helping the teachers perform well and effectively in the class. The teachers are given the skills to be developed and shared to the students where knowledge is acquired effectively.

**Table 6. Relationship Between the Teachers' Profile and Teachers' Skills**  
N = 148

Teaching Skills and..	X <sup>2</sup>	df	p-value	Interpretation	Decision
Highest Educational Attainment	3.29	4	0.510	Not Significant	Failed to Reject Ho
Teaching Experience	4.39	6	0.624	Not Significant	Failed to Reject Ho

\*Correlation is significant at 0.05 level (2-tailed)

Table 6 shows the test of relationship between the teachers' teaching skills and their demographic profile in terms of highest educational attainment and teaching experience. The result revealed that there is no significant relationship between the teachers' teaching skills and their profile as to highest educational attainment and teaching experience since the computed chi-square value of 3.29 at 4 degrees of freedom and 4.39 at 6 degrees of freedom, respectively with the corresponding p-value of 0.510 and 0.624 which are greater than 0.05 level of significance, thus failed to reject the null hypothesis. This denotes that teaching skills are not significantly influenced by highest educa-

tional attainment and teaching experienced. It further discloses that teachers uphold on their commitment to their profession and ability to handle their self regardless of experience and highest educational attainment.

Moreover, it is not an assurance that a degree and experience provide the teacher all the skills needed. As a teacher, they continue to learn from multiple sources of knowledge throughout their career. They have the opportunity to learn from practice, by making mistakes, from the students, and from other teachers and administrators. Furthermore, other factors like social interaction and self-awareness have contributed and developed the teachers in professional, interpersonal, and intrapersonal aspects.

Although a degree is a great starting point, an effective teacher needs to be committed not only to their students, but to the teaching profession as a whole. According to Lynch (2015) professional commitment is an attitude that teachers have toward their job. Teacher commitment helps to differentiate those who are devoted to their profession and those who are not. Teachers who are committed are not only committed to their students and their school but are also lifelong learners who are committed to the teaching profession. In this case, teachers take its responsibilities to carry his duties and be effective in the classroom.

**Table 7. Relationship Between the Teachers’ Teaching Performance and their Professional Skills, Interpersonal Skills and Intrapersonal Skills**  
N = 148

Teaching Performance and.....	r	p-value	Interpretation	Decision
Professional Skills	0.257	0.002	Significant	Reject Ho
Interpersonal Skills	0.278	0.001	Significant	Reject Ho
Intrapersonal Skills	0.291	<0.001	Significant	Reject Ho

*\*Correlation is significant at 0.05 level (2-tailed)*

Table 7 presents the test of relationship between the teachers’ teaching performance and their professional skills, interpersonal skills, and intrapersonal skills. The result revealed that there is a significant relationship between the teachers’ teaching performance and their professional skills since the computed correlation value of 0.257 with a computed p-value of 0.002 which is lesser than 0.05 level of significance, thus the null hypothesis is rejected. This denotes that teachers’ professional skills influence teachers’ performance and teaching effectiveness since teachers develop skills over time through professional practices shared together with other teachers.

Moreover, as the teachers are professionally exposed and continually developed, they have also applied and practiced it in delivering their lessons, thus, resulting to effective teaching performance.

Likewise, there is a significant relationship between the teachers’ teaching performance and their interpersonal skills since the computed correlation value of 0.278 with a computed p-value of 0.001 which is lesser than 0.05 level of significance, thus the null hypothesis is rejected. This implies that teachers’ interpersonal skills are important and greatly influence their performance and effectiveness. It can help teachers transmit learning easier and understandable and give a good interaction to the students.

In addition, teachers with good interpersonal skills are more likely to improve their ability to determine appropriate self-behavior, cope with undesirable behavior, absorb stress, deal with ambiguity, structure social interaction, share responsibility, and interact more easily with others (Bar-On, 2005) as cited by Lindsey and Rice (2015).

Grayson and Alvarez (2008) found that teachers who succeed in maintaining positive interpersonal contact with their students are more likely to stay motivated and enthusiastic in their teaching job and enjoy their work. Therefore, they will teach the students to learn the necessary knowledge and skills positively and effectively.

Furthermore, there is a significant relationship between the teachers’ teaching performance and their intrapersonal skills since the computed correlation value of 0.291 with a computed p-value of <0.001 which is lesser than 0.05 level of significance, thus the null hypothesis is rejected. This infers that teachers’ intrapersonal skills are a contributing factor and that it influences the teaching performance and its effectiveness.

Intrapersonal skills initiate an appropriate reaction and attitude because of positive internal dialogue occurring within the mind. In the study of Angeles (2012) on “Teaching Efficacy, Interpersonal, Intrapersonal Skills and Teaching Performance in the Tertiary School”, result shows that there is a relationship between teaching efficacy and teachers’ intrapersonal skills.

Strong intrapersonal skills help teachers to have self-awareness, control their attitude and inner processes. It will serve as their foundation to build relationships and develops interpersonal skills wherein they communicate and convey message to other teachers and to the students as well. Thus, teachers’ strong intrapersonal skills follow good interpersonal skills and finally, develops their professional skills that evidently influence

their teaching effectiveness and holistically mold them into an ideal practitioner of education.

## CONCLUSIONS

In the light of the findings presented, it was concluded that teachers' professional, interpersonal, and intrapersonal skills were not significantly influenced by their highest educational attainment and years of experience. Teachers uphold on their commitment to their profession and ability to handle themselves. Moreover, teachers' professional, interpersonal, and intrapersonal skills greatly influence teachers teaching performance. The better the teachers' skills mean the higher the teaching performance.

## RECOMMENDATIONS

Based on the conclusions mentioned, it was recommended that the Department of Education (DepEd) should continuously innovate and provide effective professional development to teachers through relevant seminars, trainings and workshop that can help teachers grow professionally and to widen their knowledge and skills. School administrators should consistently monitor and evaluate the teachers' performance and continue to mentor them in order to achieve high satisfactions and maintain sound emotional adjustment and confidence of the teachers. Teachers should strengthen and continue develop their professional, interpersonal and most of all intrapersonal skills to ensure outstanding teaching effectiveness.

## REFERENCES

- Asia Society Organization (2013). *Teacher quality: the 2013 international summit on the teaching profession*. Retrieved online from <https://asiasociety.org/files/teachingsummit2013.pdf>
- Angeles, M.P. (2012). *Teaching efficacy, interpersonal, intrapersonal skills and teaching performance in the tertiary school*. International Journal on Social Science; International Peer Reviewed Journal, Volume 2
- Dhillon, C.K. (2014) *Identifying essential teaching skills*. An International Peer reviewed.
- Scholarly Research Journal for Interdisciplinary Studies. [www.srjis.com](http://www.srjis.com) Vol.2 No. 13.
- Esguerra, D.J. (2018). *DepED urged to lighten teacher workloads following suicide reports*. Philippine Daily Inquirer. August 27. <https://newsinfo.inquirer.net/1025288/deped-urged-to-lighten-teacher-workloads-following-suicide-reports> (accessed on September 21, 2019).
- Gavino, Z. (2013). *The teaching performance in the higher institutions in Kalinga Phillipines: a benchmark of quality education*. International Journal of Advanced Research in Management and Social Science, Volume 2, Number 10
- Grayson, J. L., & Alvarez, H. K. (2008). *School climate factors relating to teacher burnout: A mediator model*. Teaching and Teacher Education, 24, 1349–1363.
- Greenberg, M. T., Brown J. L., Abenavoli, R.M. (2016). "Teacher stress and health effects on teachers, students, and schools." Edna Bennett Pierce Prevention Research Center, Pennsylvania State University
- Joseph, B. (2013). *Teacher effectiveness and professional competency among higher secondary school teachers in Kottayam District, Kerala*. Retrieve online from <https://shodhganga.inflibnet.ac.in/handle/10603/8678>
- Ko, J., Sammons, P., & Bakkum, L.,(2014). "Effective teaching: a review of research and evidence"
- Lindsey, N. S. & Rice, M. L. (2015). *Interpersonal skills and education in the traditional and online classroom environment*. Journal of Interactive Online Learning, Volume 13, Number 3, 2015
- Morgan, H. (2013). *Maximizing students success with differentiated learning*. The Clearing House: A Journal of educational Strategies, Issues and Ideas.

# METACOGNITIVE STRATEGIES AND INTERVENTION PROCESS IN SCIENCE

RHODA GULLE CUYSONA, LEANDRO C. TORREON, JULIUS J. IGOT  
ALLAN S. TIEMPO, PROCESO M. CASTIL, LUZMINDA G. MACHETE

Department of Education- District of Mabini, Bohol, Philippines  
Bohol Island State University- Candijay Campus,  
Cogtong, Candijay, Bohol, Philippines

## ABSTRACT

The main thrust of this study was to determine metacognitive strategies and intervention process in relation to academic performance to selected pupils in the District of Mabini, Bohol, Philippines. The researcher employed the descriptive- documentary method which involves observing and describing the subject without manipulating it in any way. The instrument used for data collection were the Metacognitive Reading Strategy Questionnaire (MRSQ) developed by Taraban et al. (2004). MRSQ measures two constructs: (a) the analytic cognition and (b) pragmatic behaviors. A questionnaire was also used as a tool to determine the respondents' metacognitive intervention with four-part process of metacognition from Fogarty (1994) namely: planning, monitoring, implementing and evaluating. The participants in this study were random selected 220 Grade 5 pupils, and purposively 22 teachers and 22 School Heads in the public elementary school in the said district. The result of this study revealed that there is no significant relationship between the pupils' academic performance and the metacognitive strategies in terms of analytic cognition and pragmatic behaviour. Therefore, this study concludes that even though teachers make use of metacognitive strategies among their learners, they do not significantly affect on the pupils' academic performance in Science subject. Teachers should enhance metacognitive strategies by gathering information to the learners, and giving information that is critical to their understanding through the use of other references in the library. This study will help the teachers to cope different problems in Science and it helps in improving the academic performance of the learners in handling Science and the different strategies especially in metacognition aspects.

*Keywords: Academic Performance, Intervention Pragmatic, Metacognitive, Strategies, Teachers*

## INTRODUCTION

Teachers may be impressed by the type of pupils who can understand the materials after their first reading or give well-thought-out oral or written responses to the teachers' questions promptly. Some pupils are aware of their knowledge and know when, where, and how to apply it in the learning situations. It is accepted that successful learners possess metacognition of learning.

Metacognition refers to the knowledge and control that one has over cognitive processes. With regard to reading, it is common to talk about metacognitive awareness (what one apply it in the

learning situations. It is accepted that successful learners possess metacognition of learning.

Metacognition refers to the knowledge and control that one has over cognitive processes. With regard to reading, it is common to talk about metacognitive awareness (what one

know) and metacognitive regulation or control (knowing when, where, and how to use strategies, that is, what we can do). On a general level, metacognition includes awareness and control of planning, monitoring, repairing, revising, summarizing, and evaluating. Essentially, individuals learn awareness of our comprehension processing. More specifically, one learns strategies that sup-

port our comprehension (Baker, 2008; Pressly, 2002).

One reason why metacognition is significant is that if learners are not aware of when comprehension is breaking down and what they can do about it, strategies introduced by the teacher will fail. It has pointed out that students' without metacognitive approaches are essentially learners without direction or opportunity to review their progress, accomplishments, and future directions (Pressly, 2002).

In Japan, number of hours in teaching Math and Science was increased. In December 2012, the new guidelines were implemented starting with Science and Mathematics in primary schools students fiscal 2009. One science class hour a week is used by students to discuss how to conduct experiments and hypothesize results; another two hours of class are used to conduct the experiments. In the past, teachers were passive. Now the method has changed and students can be at the center. Teachers taught with words, students would forget them in a few months. If they participate in the processes, the experience can really take root (Tamura, 2012).

On the other hand, Science education in the Philippines cannot be considered as strength. Based on results from 2014, the passing rate for National Achievement Test (NAT) for elementary grade pupils is only 69.12%. The passing rate for high school seems far worse of only 46.38% from 2010 statistics. Aside from the aforementioned national examination, the Philippines has exhibited a consistently abysmal performance in international surveys such as Trends in International Mathematics and Science Study (TIMSS). For Elementary, fourth grade participants ranked 23rd out of 25 countries in both Math and Science. Philippines stopped participating in the survey in 2008, perhaps after getting such lackluster scores (DOST-Science Education Institute, December 2018).

School within Mabini District showed low results during National Achievement Test in Science in year 2016-2017. Furthermore, results on the periodical exams or quarterly exams of the pupils were also low. Some pupils showed slow learning when it comes to comprehensions and retention of the past lessons. Thus, the researchers' aims to help improve and increase the academic performance of the pupils in Science subject using metacognitive strategy and identify the needs among teachers for pupils' gain. Teachers use metacognition strategy to improve the aca-

ademic performance among pupils especially in Science.

## LITERATURE BACKGROUND

Educational psychologists have long promoted the importance of metacognition for regulating and supporting student learning. More recently, the "Partnership for 21st Century Skills" has identified self-directed learning as one of the life and career skills necessary to prepare students for post-secondary education and the workforce. However, educators may not be familiar with methods for teaching and assessing metacognition, particularly among elementary-aged children. The purpose of studying metacognition fourfold: (1) to explore the ways in which metacognition has been defined by researchers; (2) to investigate how metacognition develops in young children; (3) to learn how teachers can encourage development of metacognitive skills in their students; and (4) to review best practices in assessing metacognition.

As Kuhn and Dean (2004) explain, metacognition is what enables a student who has been taught a particular strategy in a particular problem context to retrieve and deploy that strategy in a similar but new context. Other authors note that in cognitive psychology, metacognition is often defined as a form of executive control involving monitoring and self-regulation, a point echoed by other researchers (Schneider & Lockl, 2002). Metacognition has two constituent parts: knowledge about cognition and monitoring of cognition (Schraw, G., Crippen, K. J., & Hartley, K. 2006).

Recent research suggests that young children are capable of rudimentary forms of metacognitive thought, particularly after the age of 3. Although individual development models vary, most postulate massive improvements in metacognition during the first six years of life. Metacognition also improves with appropriate instruction, with empirical evidence supporting the notion that students can be taught to reflect on their own thinking. Assessment of metacognition is challenging for a number of reason: first, it is a complex construct; second, it is not directly observable; third, it may be confounded with both verbal ability and working memory capacity; and lastly, its existing measures tend to be narrow in focus and decontextualized from in-school learning (Lai, 2011).

The notion of metacognition applied in this study consists of knowledge of persons (both interpersonal and intrapersonal), monitoring, and

evaluation. Knowledge of persons invites awareness of students' ideas, as students' sense-making process. Monitoring and evaluation also occur in the context of students' ideas, as students test their faith in a particular idea, assessing whether they really believe that idea and whether they should keep on doing so. 2014.

Furthermore, Basic to Lev Vygotsky's sociocultural theory of human learning (1978) describes learning as a social process and the origination of human intelligence in society or culture. The major theme of Vygotsky's theoretical framework is that social interaction plays a fundamental role in the development of cognition. This theory also is the assumption that social interaction plays major role in the origin and development of higher mental (metacognitive functions). These functions appear first on the interpsychological (social) plane and only later on the intrapsychological (individual) plane.

This study will help the teachers to cope different problems in Science and it helps in improving the academic performance of the learners in handling Science and the different strategies especially in metacognition aspects.

### **OBJECTIVES OF THE STUDY**

The main thrust of this study was to determine the relationship of metacognitive strategies and intervention process used by public elementary teachers to pupils' academic performance in Science in the District of Mabini, Bohol, Philippines.

Specifically, it aimed to determine the following:

1. What is demographic profile of the teacher-respondents in terms of age, sex, educational attainments, length of teaching experience, and relevant training/seminar attended?
2. What is the pupil's academic performance in Science?
3. What is the respondents' strategy in terms of analytic cognition and pragmatic behavior?
4. What is the respondents' intervention process in terms of planning, implementing, monitoring, and evaluating?
5. Is there a significant relationship between the pupil-respondents' academic performance and the metacognitive strategies used by the teachers?
6. Is there a significant correlation between the metacognitive strategies used by the teachers and the metacognitive interventions process?

### **RESEARCH METHODOLOGY**

The researchers employed the descriptive documentary method which involves observing and describing the subject without manipulating it in any way.

The academic performance of the pupil-respondents was consolidated; the researchers used documentary analysis on the official grades from the school selected under this study. The permission was secured in order to obtain its credibility and confidentiality of the said documents.

It was conducted in the Mabini District, one of the municipalities in the third congressional district and situated in the eastern part of Bohol, Philippines. It is about 102 kilometres away from Tagbilaran City through the coastal route. Mabini district were composed of 22 elementary schools subjected in this study.

The participants in this study were randomly selected 220 Grade 5 pupils, 22 teachers of Mabini district. There were twenty-two (22) school head-teachers and teacher-respondents, while there were a total of two-hundred twenty (220) pupil-respondents.

The instrument used for data collection was the Metacognitive Reading Strategy Questionnaire (MRSQ) developed by Taraban et al. (2004). MRSQ measures two constructs: (a) the analytic cognition, and (b) pragmatic behaviors. MRSQ consists of 26 statements, each of which uses a 5-point Likert scale ranging from 1 ("I never do this") to 5 ("I always do this") and participants choose one of the five responses (never, rarely, sometimes, often, and always).

### **RESULTS AND DISCUSSIONS**

Table 1 shows the demographic profile of the respondents. In terms of the respondents' age, they are distributed throughout the age brackets which mean that there is no particular age group focused on this study. It reveals that most of the teacher-respondents are at the age bracket of 31-40 years old with nine (9) or 40.91% while the least age bracket is 51-60 years old with three (3) or 13.64% only. Furthermore, there are more female than male teachers which comprise the 81.82% with eighteen (18) while there were four (4) or 18.18% males.

The treated data revealed the following findings: As to educational attainment, majority of the respondents earned units in Master's Degree with sixteen (16) or 72.73%. For the teaching experi-



ence, the large part of the data belongs to the teachers with 1-5 years of teaching and 11-15 with five (5) or 22.73% while the lowest rank was below 1 year with one (1) or 4.56% only. \

Pertaining to the relevant trainings and seminars, all teacher-respondents had attended trainings and seminars on INSET and Mid-Year Assessment, and also more than 60% on Methods Strategies in Teaching and ENSCIMA (English, Science and Mathematics) topics.

**Table 1. Profile of Teacher-Respondents**  
N=22

<b>I.1 Age</b>	<b>F</b>	<b>%</b>	<b>R</b>
21-30 years old	3	13.64	3.5
31-40 years old	9	40.91	1
41-50 years old	7	31.82	2
51-60 years old	3	13.64	3.5
<b>Total</b>	<b>22</b>	<b>100.00%</b>	
<b>I.2 Sex</b>			
Male	4	18.18	2
Female	18	81.82	1
<b>Total</b>	<b>22</b>	<b>100%</b>	
<b>I.3 Educational Attainment</b>			
Bachelor's Degree Holder	22	100%	
With units in Master's Degree	16	72.73	1
With Master's Degree	1	4.55	4
CAR	2	9.09	3
NONE	3	13.64	2
<b>Total</b>	<b>22</b>	<b>100%</b>	
<b>I.4 Length Teaching Experience</b>			
Below 1 year	1	4.55	7
1-5 years	5	22.73	1.5
6-10 years	4	18.18	3
11-15 years	5	22.73	1.5
16-20 years	3	13.64	4
21-25 years	2	9.09	5.5
26-30 years	2	9.09	5.5
<b>I.5 Relevant trainings/seminar attended</b>			
Strategic Intervention Materials (SIM)	10	45.45	5
Methods Strategies in Teaching	15	68.18	2.5
Science Investigatory Project (SIP)	12	54.55	4
ENSCIMA	15	68.18	2.5
INSET & Mid-Year Assessment	22	100	1
<b>Total</b>		<b>100%</b>	

Table 2 reveals the selected Grade 5 pupils' academic performance in Science specifically their grades in third quarter. The table shows the different descriptor to identify the grading scale of the pupils. Based on the given data, most of the pupils belong to "Very Satisfactory" ranges 85-89 with ninety-six (96) or 43.64% and least rank was Fairly Satisfactory ranges 75-79 with one (1) or 0.45% only. It shows that most of the pupils got a noteworthy and very satisfactory result.

**Table 2. Pupils' Academic Performance in Science**  
N = 220

<b>Descriptor</b>	<b>Grading Scale</b>	<b>Frequency</b>	<b>(%)</b>	<b>Rank</b>
Outstanding	90-100	91	41.36%	2
Very Satisfactory	85-89	96	43.64%	1
Satisfactory	80-84	32	14.55%	3
Fairly Satisfactory	75-79	1	0.45%	4
Did Not Meet Expectations	Below 75	0	0	
<b>Total</b>		<b>220</b>	<b>100%</b>	

This entails that pupils were doing great in their studies for the third quarter of the academic year 2019-2020. Pupils' academic achievement is an important school-level measurement of teachers' performance (Pizana, 2014). Hence, pupils' academic achievement can be influenced by their teachers' performance.

Table 3.1 illustrates the respondents' assessment on teachers' metacognitive strategies as to analytical cognition. The statement 1 "evaluates the text to determine their students contributes to the knowledge/understanding of the subject got the highest weighted mean of 4.37 or always while the statement 8 "tries to infer that information from the text when information critical to his understanding of the text is not directly stated" got the lowest weighted mean of 4.02 or often. This denotes that teachers gave test to students as part of assessment and evaluation. According to Duncan and Mckeachie, 2005, teachers' awareness to students' abilities can provide good perspectives and ideas to the accurate task to be provided to influence students' academic achievement.

**Table 3.1. Respondents' Assessment on Teachers' Metacognitive Strategies as to Analytical Cognition**  
N = 264

<b>Statement</b>	<b>WM</b>	<b>VI</b>	<b>Rank</b>
3.1 Analytic Cognition The teacher.....			
1. evaluate the text to determine their students contribute to the knowledge/understanding of the	4.37	A	1
2. anticipate how he/she will use the knowledge that their pupils gained from reading the text	4.35	A	2.5
3. try to draw on his knowledge of the topic to help them understand what they are reading	4.21	A	9
4. reconsider and revise his background knowledge about the topic	4.28	A	5.5
5. reconsider and revises his prior questions about the topic	4.18	O	12
6. consider other possible interpretations to determine whether his pupils understood the text	4.18	O	12
7. distinguishes between information that he already know and new information	4.28	A	5.5
8. try to infer that information from the text when information critical to his understanding of the text is not directly stated	4.02	O	16

9. evaluate whether what he is reading is relevant to his reading goals	4.35	A	2.5
10. search out information relevant to his reading goals	4.18	O	12
11. anticipate information that will be presented later in the text	4.18	O	12
12. try to determine the meaning of unknown words that seem critical to the meaning of the text	4.18	O	12
13. check whether they had anticipated the current information	4.29	A	4
14. exploit his personal strengths in order to better understand the text	4.26	A	7
15. visualize descriptions in order to better understand the text	4.25	A	8
16. take note how hard or easy a text is to read	4.14	O	15
<b>Average Weighted Mean</b>	<b>4.23</b>	<b>Always</b>	

Legend:

Rating Scale	Verbal Interpretation	Weighted Mean (WM)
4.20 – 5.00	Always (A)	
3.40 – 4.19	Often (O)	
2.60 – 3.39	Sometimes (S)	
1.80 – 2.59	Rarely (R)	
1:00- 1.79	Never (N)	

As to pragmatic behavior, the respondents' assessment for this category was always on item 6 "re-read the text when having difficulty" and 10 "study difficult lessons/topic" with 4.20, while the over-all average weighted mean of school heads and teachers was 4.29 or Always.

Finding what is effective is a day-by-day and a class-by-class effort like metacognitive strategies in pragmatic behaviors. How the learners adopt to the given tasks matters also on the result of their performance.

In public schools where teachers are committed, there is a positive effect on student achievement (Taylor, E. 2011).

However, teachers with low level commitment can contribute to a reduction of student achievement and develop fewer plans to improve the academic quality of their instruction (NASSP, 2008). Thus, teachers need to assess themselves on their performance to affect student progress academically.

**Table 3.2. Respondents' Assessment on Teachers' Metacognitive Strategy As to Pragmatic Behaviors**  
N = 264

Statement	WM	VI	Rank
The teacher teaches his/her pupils to....			
1. make notes when reading in order to remember the information	4.10	O	4.5
2. underline and highlight important information in order to find it more easily	4.08	O	6
3. write questions and notes in the margin	3.93	O	10
4. try to underline difficult words when reading	4.10	O	4.5
5. read materials more than once	4.07	O	7
6. re-read the text when having difficulty	4.20	A	1.5
7. ask questions for clarification	4.19	O	3
8. read other references in the library	3.94	O	9
9. search the meaning of scientific words	4.05	O	8
10. study difficult lessons/topic	4.20	A	1.5
<b>Average Weighted Mean</b>	<b>4.09</b>	<b>Often</b>	

Legend:

Rating Scale	Verbal Interpretation	Weighted Mean (WM)
4.20 – 5.00	Always (A)	
3.40 – 4.19	Often (O)	
2.60 – 3.39	Sometimes (S)	
1.80 – 2.59	Rarely (R)	
1:00- 1.79	Never (N)	

As shown in Table 4.1 shows the respondents' assessment on the teachers' metacognitive intervention as to planning.

**Table 4.1. Respondents' Assessment on the Teachers' Metacognitive Intervention as to Planning**  
N = 44

Statement	WM	VI	Rank
The teacher.....			
1. think about the text topic.	4.73	A	1
2. think about how text features can help in understanding the topic	4.64	A	2
3. read the title and author, front and back cover blurbs, and table of contents	4.25	A	7
4. study illustrations, photos, and graphics, including labels and captions	4.41	A	4
5. skim for boldfaced words, headings and subheadings, and summaries	4.32	A	6
6. think about what they know, what connections they can make, and what questions they might want to answer	4.39	A	5
7. think about the way the text might be organized, such as cause and effect compare and contrast sequence of events	4.48	A	3
<b>Average Weighted Mean</b>	<b>4.46</b>	<b>Always</b>	

Legend:

Rating Scale	Verbal Interpretation	Weighted Mean (WM)
4.20 – 5.00	Always (A)	
3.40 – 4.19	Often (O)	
2.60 – 3.39	Sometimes (S)	
1.80 – 2.59	Rarely (R)	
1:00- 1.79	Never (N)	

The statement number 1 "thinks about the text topic" got the highest weighted mean of 4.73 or always while statement number 3 "reads the title and author, front and back cover blurbs, and table of contents" got the lowest weighted mean of 4.25 or always. It explains that in every intervention process among teachers, planning must be the first step in order to achieve a certain goal. Further, based on the given data, the average weighted mean is 4.46 or Always. Most of the respondents think about the text topic which signifies the implementation of metacognitive strategy or thinking about thinking.

During planning phase, teacher has set and considered how they will approach the task and which strategies they will use. Teacher takes responsibility for planning activities, too often teachers teaches students "what to think but not how to think" (Flavell, 1981). Furthermore, planning and organizing are beneficial in learning unfamiliar content by low proficient learners (Ching, 2002).

**Table 4.2. Respondents' Assessment on the Teachers' Metacognitive Intervention as to Implementing**  
N = 44

Statement	WM	VI	Rank
The teacher.....			
1. motivate the pupils to answer the questions	4.71	A	3.5
2. show cards and illustration	4.46	A	7
3. ask pre-questions about the lesson	4.60	A	5
4. perform the given activity	4.48	A	6
5. give examples	4.79	A	1
6. give group activity	4.75	A	2
7. listen pupils ideas and opinion	4.71	A	3.5
<b>Average Weighted Mean</b>	<b>4.64</b>	<b>A</b>	

Legend:

Rating Scale	Verbal Interpretation	Weighted Mean (WM)
4.20 – 5.00	Always (A)	
3.40 – 4.19	Often (O)	
2.60 – 3.39	Sometimes (S)	
1.80 – 2.59	Rarely (R)	
1:00- 1.79	Never (N)	

On other hand, Table 4.2 emphasizes on the metacognitive intervention as to implementing. The highest weighted mean of 4.79 interpreted as always is statement 5 which is “giving examples”. However, the lowest weighted mean of 4.46 with an interpretation of always was statement 2, show cards and illustration. It can be gleaned from the result that most of the teachers and school heads provide examples in the conducting their teaching - learning process in which they answered Always (A) on the over-all average weighted mean of 4.64.

Most of the teachers during intervention process give examples towards the learners in order for further and better learning. Learners do not actively participate during lesson thus teachers' fails in making them involved that's why it is possible to give first examples to them before they will actively participate especially if given a group activity.

As shown in Table 4.3, the highest weighted mean is item number 3, “it makes inferences” with 4.71 or Always, while the lowest for this category was item number 8 “writes comments or questions on self-stick notes or in the margins” with 4.25 or always. The overall weighted mean of 4.51 and interpreted as always. This means that teachers monitor if the pupils are doing well according to the different strategies applied to them. It involves the changes and adapting strategies.

**Table 4.3. Respondents' Assessment on the Teachers' Metacognitive Intervention as to Monitoring**  
N = 44

Statement	WM	VI	Rank
The teacher.....			
1. make connections	4.64	A	2
2. make predictions	4.57	A	3.5
3. make inferences	4.71	A	1
4. use context clues	4.57	A	3.5

5. use text features	4.55	A	5
6. identify text structures	4.50	A	6
7. use graphic organizers to pinpoint particular types of text information	4.34	A	7
8. write comments or questions on self-stick notes or in the margins	4.25	A	8
<b>Average Weighted Mean</b>	<b>4.51</b>	<b>Always</b>	

Legend:

Rating Scale	Verbal Interpretation	Weighted Mean (WM)
4.20 – 5.00	Always (A)	
3.40 – 4.19	Often (O)	
2.60 – 3.39	Sometimes (S)	
1.80 – 2.59	Rarely (R)	
1:00- 1.79	Never (N)	

According to O'Malley and Chamot (2001), metacognitive strategies involve the learning process, planning for learning, monitoring the learning tasks, and evaluating how one has learned.

Table 4.4 states the respondents' assessment on the teachers' metacognitive intervention as to evaluating. In the given data, statement number 1 “carefully reads and understands the pupils work” ranks first with a weighted mean of 4.73 or always. This is being done after a given task to the learners. On other hand, statement number 5 “asks some help from colleagues for next time” was the lowest rank with a weighted mean of 4.30 or always.

**Table 4.4. Respondents' Assessment on the Teachers' Metacognitive Intervention as to Evaluating**  
N = 44

Statement	WM	VI	Rank
The teacher.....			
1. carefully reads and understand the pupils work	4.73	A	1
2. always apply strategies worked well for me	4.66	A	2
3. improve and modify strategies that did not work for me	4.57	A	4
4. plan of what will be done next time	4.59	A	3
5. ask some help from colleagues for next time	4.30	A	7
6. always remember and review what I read	4.50	A	5
7. solicit feedback from experts	4.44	A	6
<b>Average Weighted Mean</b>	<b>4.54</b>	<b>Always</b>	

Legend:

Rating Scale	Verbal Interpretation	Weighted Mean (WM)
4.20 – 5.00	Always (A)	
3.40 – 4.19	Often (O)	
2.60 – 3.39	Sometimes (S)	
1.80 – 2.59	Rarely (R)	
1:00- 1.79	Never (N)	

According to O'Malley and Chamot (2001) metacognitive strategies involve the learning process, planning for learning, monitoring the learning tasks, and evaluating how one has learned.

Table 5 presents the test of relationship between the pupils' academic performance and the metacognitive strategies in terms of analytic cognition and pragmatic behavior. The result depicted that there is no significant relationship between the pupils' academic performance and the metacognitive strategies in terms of analytic cognition

and pragmatic behavior since the computed correlation value of -0.068 and -0.067 with the corresponding computed p-value of 0.313 and 0.320, respectively are greater than 0.05 level of significance. This denotes that academic performance of pupils does not depend on the analytic cognition strategies employed by the teachers.

**Table 5. Relationship Between the Pupils' Academic Achievement and the Metacognitive Strategies**  
N = 220

Academic Performance and.....	r	p-value	Interpretation	Decision
Analytic Cognition	-0.068	0.313	Not Significant	Failed to Reject Ho
Pragmatic Behavior	-0.067	0.320	Not Significant	Failed to Reject Ho
Overall Metacognitive Strategies	-0.073	0.284	Not Significant	Failed to Reject Ho

\*Correlation is significant at 0.05 level (2-tailed)

The result is supported by the study of Turan and Demirel, (2010) pupils with high academic performance demonstrate high level of metacognitive awareness. Therefore, academic achievement of pupils does not rely only on the performance of the teachers and how teachers used the metacognitive strategies. It helps the teachers to improve the academic performance of the learners using metacognitive strategies.

Moreover, there is no significant relationship between the pupils' academic performance and the overall metacognitive strategies since the computed correlation value of -0.073 with a computed p-value of 0.284 is greater than 0.05 level of significance, thus failed to reject the null hypothesis. This contradicts that there is a positive influence for training on metacognitive strategies and pupils with poor metacognition may benefit from these training to improve their metacognition and academic performance (Ponnusamy, 2002; Rezvan, Ahmadh & Abedi, 2006).

On the other hand, a study supports a negative relation between metacognition and academic achievement (Justice & Dornan, 2001). Cubukcu (2009) found no difference between control and experimental group (that taught using metacognitive strategies) on pupils' achievement.

**Table 6. Correlation Between the Teachers' Metacognitive Strategies and the Metacognitive Intervention Process**  
N = 22

Variables	r	P-value	Interpretation	Decision
Metacognitive Strategies and... Metacognitive Intervention Process	0.033	0.886	Not Significant	Failed to Reject Ho

\*Correlation is significant at 0.05 level (2-tailed)

Table 6 illustrates the test of correlation between the teachers' metacognitive strategies and the metacognitive intervention process. The result shown that there is no significant correlation between the teachers' metacognitive strategies and the metacognitive intervention process since the computed correlation value of 0.033 with a computed p-value of 0.886 which is greater than 0.05 level of significance, thus failed to reject the null hypothesis. The result implies that metacognitive strategies are not a contributing factor to affect intervention process.

The Metacognitive strategies did not show significant gains in the pupils' metacognitive strategies, the qualitative data from suggested positive perceptions of pupils of their metacognitive strategies amongst the high- and average-achieving pupils. The effect of metacognitive interventions on pupils' academic performance in the light test resulted in pupils displaying the correct declarative knowledge (Hartman, 2001). Therefore, this study concludes that even though teachers make use of metacognitive strategies among their learners, they do not significantly affect on the pupils' academic performance in Science subject. But it helps the teachers to improve the quality of teaching in Science among their learners using metacognition strategies and process.

## CONCLUSION

The result of the study revealed that there is no significant relationship between the pupils' academic performance and the metacognitive strategies in terms of analytic cognition and pragmatic behavior. Therefore, this study concludes that even though teachers make use of metacognitive strategies among their learners, they do not significantly affect on the pupils' academic performance in Science subject. But it helps the teachers to improve the quality of teaching in Science among their learners using metacognition strategies and process.

## RECOMMENDATION

Based on the findings and conclusions mentioned, the following recommendations were drawn.

School heads should craft an appropriate school-based intervention process and/or action plan to boost their teachers' job performance, sat-

isfaction and effectiveness, follow up the need and provide assistance to the member to have a harmonious and collaborative work among them to ensure the effectiveness of their work towards the learners.

Teachers should enhance metacognitive strategies by gathering information to the learners and giving information that is critical to understanding through the use of other references in the library, and taking questions and notes. It should be done by using metacognition strategies like study habit among learners, using library during vacant time to improve academic performance in Science.

### BIBLIOGRAPHY

- Baker, L. (2008). *Metacognitive development in reading: contributors and consequences*. In K. Mokhtari & R. Sheorey (Eds.), *reading strategies of first-and second-language learners: See how they read* (pp. 25-42). Norwood, MA: Christopher Gordon.
- Bilbao, P. et al., (2008). *Curriculum development*. Metro Manila: Lorimar Publishing Inc.
- Briñol, P. & DeMaree, K., (2012), *Social Metacognition: Thinking about thinking in Social Psychology, in social metacognition*, New York Psychology Press, 1-18
- Briñol, P. & DeMaree, K., (2012), *a metacognitive model of the effects of susceptibility to persuasion self-beliefs on advertising effects*, *Journal Advertising effects*, 2017
- Bruner, J. (1966) *Constructivism theory toward theory of instruction*. Cambridge,MA: Harvard University Press.
- Chamot, A.U., & O'Malley, J.M (2001) *The cognitive academic language learning approach: a model for linguistically diverse classrooms*. *The Elementary School Journal*, 96, 259-273
- Ching, L.C. (2002) *Strategy and self-regulation instruction as contributors to improving students' cognitive model in ESL program*
- Connolly, J., Dunning, G. & Elliott, T, (2006) *How very effective primary schools work*, London: Paul Chapman
- Cubukcu, F. (2009). *Metacognition in the classroom, procedia social and behavioral science, 1*, 559-563.
- DepEd Order 17, series 2017- *Guidelines on the provision of science & mathematics equipment for grades 4-6 in public elementary schools and grades 11-12 in public senior high schools*
- Dial, J.C. (2008) "*The effect of teacher experience and teacher degree levels on student achievement in mathematics and communication arts*. B.S., Missouri Western State University (2000),M.A., Baker University (2003). Retrieved February 20, 2016 fro, <https://ww.bakeru.edu/pdf/SOE/EdDTheses/DialJaime.pdf>
- Division Memorandum No. 227 Series 2019 *The conduct of lac session & dagnostics test for elementary science. In line with the pursuit of the department of education, division of bohol to improve teachers' competence and pupils' performance*. Department of Science & Technology (DOST) Science Education Institute, December, 2018
- Eisenberg, N. (2010). *Self- regulation & school readiness*. *Early education and development*, 21(5), 681-698.
- Erikson, E. H. (1994) *Psychosocial Development*. *Childhood & Society*. New York: Norton.
- Flavell, J.H. (1979). *Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry*. *American Psychologist*, 34(10), 906-911.
- Flavell, J.H. (2004). *Theory of mind development: Retrospect and prospect*. *Merrill-Palmer Quarterly*, 50, 274-290.
- Ford, C.L. & Yore, L.D. (2014). *Metacognitive in science education: Trends in Current Research*. Dordrecht: Springer.
- Grotzer, T.and Mittlefehldt, S. (2011). "*The Role of Metacognition in Students' Understanding and Transfer of Explanatory Structures in Science*". Northern Michigan University 2011.



- Justice, E.M., & Dornan, T.M. (2001). *Metacognitive differences between traditional-age and non-traditional-age college students. Adult education quarterly*, 51, 236-249.
- Karlen, KM Merki, & Ramseir, E. (2014) *The effect of individual differences in the development of metacognitive strategy knowledge*, 2014 Springer.
- Kuhn, D. & Dean, D. (2004). *A bridge between cognitive psychology and educational practice. Theory into Practice*, 43(4), 268-273.
- Ladd, H.F. (2008). "Value-added modeling of teacher credentials: policy implications." paper presented at the first annual CALDER research conference, "The Ins and Outs of Value-Added Measures in Education: What research Says," Washington, D.C. Retrieved February 20, 2016 from [http://tntp.org/assets/documents/TNTP\\_FactSheet\\_Teacher\\_Experience\\_2012.pdf](http://tntp.org/assets/documents/TNTP_FactSheet_Teacher_Experience_2012.pdf)
- Lai, E.R. (2011). *Metacognition: a literature review. Research Report. London*:
- Paas, F. Renk & Sweller 2003
- Pressly, M. (2002) *Metacognition and self-regulated comprehension. In A. Farstrup & S. J. Samuels (Eds.) (3rd Ed). what research has to say about reading instruction (pp. 291-309). Newark, DE: International Reading Association.*
- Piaget, J. (1971). *The construction of reality in the child (2nd ed.)*, New York: Ballantine.
- Pizana, Anthony, (2014). *The relationship between the school facility conditions and pupils' achievement in elementary schools of Candijay.unpublished book from a study in Bohol Island State University, Candijay Campus.*
- Republic Act No. 4670 section 7. *Code of ethics for public school teachers. The LawPhil Project* <http://www.lawphil.net>.
- Schneider, W. & Lockl, K. (2002). *The development of metacognitive knowledge in children and adolescents. In Perfect, T. & Schwartz, B. (Eds.), applied metacognition. Cambridge, UK: Cambridge University Press.*
- Schunk, D. H. 2001. *Social cognitive theory and self-regulated learning. In self-regulated learning and academic achievement: Theoretical perspectives, 125-51. School Curriculum in Japan, 2012*
- Schraw, G., Crippen, K. J., & Hartley, K. (2006). *Promoting self-regulation in science education: Metacognition as part of a broader perspective on learning. Research in Science Education*, 36, 111-139.
- Subramanyan, S., Phipps, m., Luchs, M., (2010) *Understanding the inherent complexityof sustainable consumption: A social cognitive framework, Journal of Business, 2013*
- Swanson, H.L. 2000. *What instruction works for students with learning disabilities, summarizing the results from a meta-analysis of intervention studies. In Contemporary special education research: synthesis of the knowledge base on critical instructional issues, 1-30. The Journal of Education Research*
- Vygotsky, L. (1978). *Mind in society: the development of higher psychological processes. Cambridge, MA: Harvard University Press.*



# LEARNING ACTION CELL SESSION PRACTICES IN RELATION TO SCHOOL PERFORMANCE

ROSITA C. YUSALINA, LEANDRO C. TORREON, JULIUS J. IGOT  
ALLAN S. TIEMPO, PROCESO M. CASTIL, LUZMINDA G. MACHETE

Department of Education- District of Duero, Bohol, Philippines  
Bohol Island State University, Candijay Campus, Cogtong, Candijay, Bohol, Philippines

## ABSTRACT

The main thrust of this study was to determine the relationship between the level of learning action cell session practices and school performance in the selected public elementary schools of Candijay, Alicia, Mabini, Anda, Guindulman and Duero Districts of Bohol Division for the School Year 2019-2020. This study employed descriptive survey using researcher-made questionnaires. The quantitative data from the survey-checklists were utilized in order to address the primary aim of this study. There were a total number of two hundred forty (240) teacher-respondents. After the data collection, these were tabulated, analyzed, interpreted, and reported. The result of the study revealed that there is a significant relationship between the level of learning action cell session practices and school performance in terms of promotion rate and failure rate. However, dropout rate was found to be insignificantly related to their level of learning action cell session practices. Therefore, this study concluded that the Learning Action Cell session can boost school performance in terms of pupils' promotion and minimize failure. Thus, the higher the level of learning action cell session practices, the more pupils will be promoted to the next grade level and failure rate will significantly decreased. Based upon the findings and conclusions of the study, it is recommended that the school heads should implement learning action cell sessions regularly. They should ensure the strict monitoring of learning action cell sessions and related activities and evaluate their impact on teacher professional development, quality teaching and pupil achievement; and teachers should attend learning action cell sessions, develop plans to apply what has been learned, and implement agreed action plan in one's classroom.

*Keywords: learning action cell session, practices, school performance*

## INTRODUCTION

“Education is a continuous process.” This quote of a writer gives us a challenge to think and decide for ourselves what can greatly help in our needs and aspirations. Professional learning is the strategy used by schools and school districts to ensure that teachers continue to strengthen their knowledge and practices in their teaching profession (Mizell, 2010). Besides, the most effective professional development engages a team of teachers to focus on the needs of their pupils. Teachers' engagement in effective professional development and in-service training increases pupil achievement. So how can these professional developments be achieved?

According to Selvi (2010), teachers still needs to improve their own knowledge and skills in order to become competent and capable of offering

quality teaching to the pupils. Thus, teaching practices greatly impact students' achievement and can make a difference in a student's willingness and ability to achieve (Fornes, Kavale, Blum, & Lloyd, 1997). The Learning Action Cells (LACs) is DepEd's primary mechanism for the professional development of the teachers, defined as a group of teachers who engage in collaborative learning sessions to solve shared challenges encountered in the school facilitated by the school heads or a designated LAC leader.

This study was conceptualized to assess the relationship between the level of learning action cell session practices and the school performance in terms of promotion rate, failure rate and dropout rate as the basis for LAC planning particularly in selected public elementary schools of Candijay, Alicia, Mabini, Anda, Guindulman, and Duero

Districts of Bohol Division and with the aim to give assistance to help lessen their burdens.

### OBJECTIVES OF THE STUDY

The main purpose of this study is to ascertain the relationship between the level of learning action cell session practices and the school performance.

Specifically, it seeks to answer the following questions:

1. What is the profile of the teacher respondents as to:
  - 1.1 age;
  - 1.2 sex;
  - 1.3 civil status;
  - 1.4 highest educational attainment;
  - 1.5 years in teaching experience;
  - 1.6 grade level handled; and
  - 1.7 LAC session attended?
2. What is the level of learning action cell session practices in terms of:
  - 2.1 planning;
  - 2.2 Implementation;
  - 2.3 monitoring; and
  - 2.4 evaluation
3. What is the school performance in terms of: promotion rate;
  - 3.1 failure rate; and
  - 3.2 dropout rate?
4. What is the assessment of the teacher-respondents on the effect of Learning Action Cell session practices in terms of:
  - 4.1 motivation of pupils to learn;
  - 4.2 utilization of varied teaching strategies;
  - 4.3 utilization of technology in teaching; and
  - 4.4 evaluation of pupils' learning?
5. Is there a significant relationship between the respondents' profile and the level of learning action cell session practices?
6. Is there a significant correlation between the level of learning action cell session practices and assessment on the effect of learning action cell session practices?
7. Is there a significant relationship between the assessments on the level of learning action cell practices and their school performance?
8. Is there a significant difference between the respondents' level of learning action cell session practices?

### RESEARCH METHODOLOGY

To evaluate the level of learning action cell session practices to school performance of selected public elementary schools in the Eastern part of the province of Bohol. The researchers' utilized the descriptive survey with the aid of questionnaire as the main gathering tool in determining the demographic profile of the teacher-respondents in terms of age, sex, civil status, highest educational attainment, years in teaching experience, grade level handled, and LAC session attended as an instrument in gathering data needed in the study.

The researcher collects data through quantitative and descriptive survey based on the aid of a questionnaire about a specific topic.

These locales of the study were from six (6) districts in the eastern part of the province of Bohol namely: Candijay, Alicia, Mabini, Anda, Guindulman and Duero. From Tagbilaran City, Candijay is 92 kilometers or 57 miles, a two-hour ride away, Alicia is 103 kilometers or 64 miles, Mabini is approximately 104 kilometers, Anda is about 99.3 kilometers, Guindulman is 84.6 kilometers and Duero lies on the southeastern part of the province of Bohol, 73.1 kilometers away from Tagbilaran City. On the other hand, there were two hundred forty selected public elementary teachers participated in this study.

### FINDINGS

Table 1 shows the profile of the respondents in terms of age, sex, civil status, highest educational attainment, years in teaching experience, grade level handled, and the level of LAC session practices attended.

**Table 1 Profile of the Respondents N=240**

<b>1.1 Age</b>	<b>Frequency</b>	<b>Percentage (%)</b>	<b>Rank</b>
25 years old below	12	5.00	5
26 – 35 years old	84	35.00	1
36 – 45 years old	73	30.42	2
46 – 55 years old	57	23.75	3
56 – 65 years old	14	5.83	4
Total	240	100.00%	
<b>1.2 Sex</b>			
Male	18	7.50	2
Female	222	92.50	1
Total	240	100%	
<b>1.3. Civil Status</b>			
Single	42	17.50	2
Married	192	80.00	1
Widow/Widower	6	2.50	3
Divorced/Separated	0	0.00	4
Total	240	100%	

<b>1.4. Highest Educational Attainment</b>			
Bachelor's Degree Holder	56	23.33	2
With units in Master's Degree	167	69.58	1
Master's Degree Graduate	13	5.42	3
With PhD./Ed.D. units	3	1.25	4
Doctorate	1	0.42	5
Total	240	100%	
<b>1.5. Years in Teaching Experience</b>			
Below 1 year	6	2.50	7
1 -5 years	62	25.83	1
6 – 10 years	56	23.33	2
11 – 15 years	44	18.33	3
16 – 20 years	31	12.92	4
21 – 25 years	18	7.50	6
26 years and above	23	9.58	5
Total	240	100%	
<b>1.6. Grade Level Handled</b>			
Kinder	21	8.75	7
Grade 1	38	15.83	3
Grade 2	35	14.58	5
Grade 3	28	11.67	6
Grade 4	36	15.00	4
Grade 5	40	16.67	2
Grade 6	42	17.50	1
Total	240	100%	
<b>1.7. Level of LAC Session Attended</b>			
School – Based	66	27.50	2
Cluster- Based	36	15.00	3
District – Based	138	57.50	1
Total	240	100%	

According to Yara (2009), one way to achieve professional growth is through attending seminars and trainings. Theories of learning and different approaches and strategies in teaching keep on changing; hence, teachers should update themselves with these changes so that they would be more effective in imparting knowledge to the students. Moreover, pursuing professional improvement may help teachers achieve desirable teaching outcome and professional growth through learning action cell sessions.

**Table 2 Level of Learning Action Cell Session Practices N=240**

Item	WM	DI	Rank
Planning	3.33	HO	4
Implementation	3.40	HO	2
Monitoring	3.37	HO	3
Evaluation	3.45	HO	1
<b>Average Weighted Mean (AWM)</b>	<b>3.39</b>	<b>Highly Observed</b>	

Table 2 portrays levels of learning action cell session practices as to planning, implementation, monitoring and evaluation. The results revealed that among the four constructs, “Evaluation” ranked first with the average weighted mean of 3.45 which described as “Highly Observed”, and

item number 1 “Planning” got the weighted mean of 3.33 which is also interpreted as “Highly Observed”. This denotes that in every learning action cell session conducted, either on district-based, cluster-based and school-based, evaluation is always part of the activity.

The results shown that planning, implementation, monitoring and evaluation were Highly Observed by the respondents during the learning action cell sessions. This implies that all the process was highly evident.

Table 3 shows the school performance in terms of promotion rate, failure rate and dropout rate. As shown in table that in promotion rate mostly were in the percentage bracket of 91-100% with a frequency of 31, it implies that the school performance in terms of promotion rate are higher. While in failure rate all pupils (100%) falls below 5.00%. On the other hand, on dropout rate there were 30 respondents or 96.77% correspond to below 2.00 while one was under 2.00- 3.99 with 3.23%.

**Table 3 School Performance N=31**

3.1 Promotion Rate	Frequency	Percentage (%)	Rank
91 – 100%	31	100.00	1
81 – 90%	0	0	2.5
80% and below	0	0	2.5
<b>Total</b>	<b>31</b>	<b>100.00%</b>	
3.2 Failure Rate			
Below 5.00%	31	100.00	1
5.00 – 9.99%	0	0	2.5
10.00% and above	0	0	2.5
<b>Total</b>	<b>31</b>	<b>100.00</b>	
3.3 Dropout Rate			
Below 2.00	30	96.77	1
2.00 – 3.99	1	3.23	2
4.00 – 5.99	0	0	3.5
6.00 and above	0	0	3.5
<b>Total</b>	<b>31</b>	<b>100%</b>	

The results denote that the school subjected in this study belonged to the outstanding performance, wherein the LAC sessions was evident that can improve performance.

**Table 4 Respondents' Assessment on the Effect of LAC Sessions Practices N = 240**

Statement	WM	DI	Rank
Motivation of Pupils to Learn	3.80	SA	1
Utilization of Varied Teaching Strategies	3.66	SA	3
Utilization of Technology in Teaching	3.60	SA	4
Evaluation of Pupil's Learning	3.71	SA	2
<b>Average Weighted Mean (AWM)</b>	<b>3.69</b>	<b>Strongly Agree</b>	

Table 4 demonstrates the respondents' assessments on the effect of learning action cell session. In the present study, this variable was measured in four indicators, namely: motivation of pupils to learn, utilization of varied teaching strategies, utilization of technology in teaching and evaluation of pupils' learning.

As shown on the table, among the four indicators of assessment on learning action cell session, "Motivation of pupils to learn" got the highest weighted mean of 3.80, interpreted as "Strongly Agree" while "Utilization of Technology in Teaching" got the weighted mean of 3.60 which is describes as "Strongly Agree". According to Buckmaster and Carroll (2008), learner motivation is one of the most important components of learning in all formal and informal settings. Some students naturally seem motivated to learn, others need inspiration and stimulation.

**Table 5 Relationship between the Respondents' Profile and the Level of Learning Action Cell Session Practices**  
N = 240

Profile	X <sup>2</sup>	df	p-value	Interpretation	Decision
Age	11.45	12	0.491	Not Significant	Failed to Reject Ho
Sex	1.924	2	0.523	Not Significant	Failed to Reject Ho
Civil Status	2.036	2	0.562	Not Significant	Failed to Reject Ho
Highest Educational Attainment	8.58	12	0.739	Not Significant	Failed to Reject Ho
Teaching Experience	41.85	18	0.001	Significant	Reject Ho
Grade Level Handled	28.03	10	0.038	Significant	Reject Ho

\*Correlation is significant at 0.05 level (2-tailed)

Table 5 displays the test of relationship between the level learning action cell practices and the respondents' profile in terms of age, sex, civil status, highest educational attainment, teaching experience and grade level handled. The result revealed that the level of learning action cell session practices is significantly related to the respondents' profile in terms of teaching experience,  $X^2(18) = 41.85$ ,  $p = .001$ , and grade level handled,  $X^2(10) = 28.03$ ,  $p = 0.038$ , thus the null hypothesis is rejected. This denotes that teachers with more years in teaching and has grade level handled are more likely to attend and participate LAC sessions.

**Table 6 Relationship between the Level of Learning Action Cell Session Practices and the Assessment on the Effect of Learning Action Cell Sessions** N = 240

LAC Session Practices and...	r	p-value	Interpretation	Decision
Assessment of LAC Sessions Conducted	0.436	<0.001	Significant	Reject Ho

\*Correlation is significant at 0.05 level (2-tailed)

Table 6 illustrates the level of learning action cell practices (LAC) and the respondents' assessment on learning action cell sessions conducted. The result depicted that there is enough evidence of a significant relationship between the learning action cell practices and the respondents' assessment on learning action cell sessions conducted  $r(238) = 0.436$ ,  $p < 0.001$  thus, the null hypothesis is rejected. This indicates that teachers' assessment on LAC sessions conducted is significantly associated with their learning action cell practices.

**Table 7 Relationship between the Level of Learning Action Cell Session Practices and the School Performance**  
N = 31

School Performance	r	p-value	Interpretation	Decision
Promotion Rate	0.394	0.028	Significant	Reject Ho
Failure Rate	-0.394	0.028	Significant	Reject Ho
Dropout Rate	-0.284	0.115	Not Significant	Failed to Reject Ho

\*Correlation is significant at 0.05 level (2-tailed)

Table 7 shows the test of relationship between the level of learning action cell (LAC) practices and the school performance as to promotion rate, failure rate and dropout rate. The result shown that there is a sufficient evidence of a significant relationship between the level of LAC practices and the school performance in terms of promotion rate  $r(29) = 0.394$ ,  $p = 0.028$  and failure rate  $r(29) = -0.394$ ,  $p = 0.028$ , thus the null hypothesis is rejected. This indicates that the higher the level of learning action cell session practices, the more pupils will be promoted to the next grade level. Failure rate will dramatically decrease due to the increase in promotion rate.

**Table 8 Difference between the Respondents' Practices in Conducting Learning Action Cell Sessions**  
N1 = 36; N2 = 66; N3 = 138

Variable	F	p-value	Interpretation	Decision
Practices in Conducting LAC Sessions	3.538	0.031	Significant	Reject Ho

\*Difference is significant 0.05 level (2-tailed)

Table 8 illustrates the test of difference between the respondents' practices in Learning Action Cell sessions. Out of 240 teacher-respondents, thirty-six (36) of them were on cluster-based, sixty-six (66) were on school-based and one-hundred thirty-eight (138) were on district-based LAC sessions. The result shown that there is enough evidence of a significant difference between the respondents' practices in conducting LAC sessions  $F(2, 219) = 3.538$ ,  $p = 0.031$ , thus

the null hypothesis is rejected. This means that the three types of LAC session vary on how it should be conducted.

Moreover, the researcher used post hoc analysis using Tukey test to determine the difference between multiple group means.

#### Multiple Comparison

Types of LAC Sessions		Mean Difference	p-value	Interpretation	Decision
School-Based	Cluster-Based	0.096	0.476	Not Significant	Failed to Reject Ho
	District	0.191	0.034	Significant	Reject Ho
Cluster-Based	Based	0.095	0.272	Not Significant	Reject Ho

The result of the post hoc analysis using the Tukey test disclosed that significant difference lies between the practices of the teacher-respondents whose LAC sessions conducted in School-based and District-based,  $p = 0.034$ . This implies that teachers who attended in School-based and District-based LAC sessions differs in their practices. It further deduces that the teachers' practices School-based LAC sessions is significantly different from those LAC sessions conducted in the District.

#### CONCLUSIONS

Based on the results and findings of this study, there is enough evidence of a significant relationship between the level of learning action cell session practices and the school performance in terms of promotion rate and failure rate. Meanwhile, the level of learning action cell session practices and the school performance in terms of dropout rate is significantly related. Therefore, this study concluded that the Learning Action Cell session can help boost school performance in terms of pupils' promotion and decrease failure. Thus, the higher the level of learning action cell session practices, the more pupils will get promoted to the next grade level, and the failure rate will dramatically be decreased due to the increase in promotion rate.

#### RECOMMENDATIONS

Based upon the findings and conclusions of the study, the following recommendations were

drawn. The School Heads should monitor the conduct of learning action cell sessions regularly among the teachers and should warrant the monitoring of learning action cell sessions and related activities and evaluating their impact on teacher professional development, quality teaching and pupil achievement. Moreover, teachers should consistently and participate actively in the conduct of learning action cell sessions. They should develop plans to apply what has been learned and implement agreed action plan in one's classroom. Lastly, the learners should cooperate and participate actively during class discussion to uphold academic success and high performance.

#### ACKNOWLEDGEMENT

The researcher's greatest gratitude for GOD for His providence and helped inspired throughout the study. Privilege and genuine pleasure of thanks to the members of the researchers family parents siblings whose love and guidance are within and for their continuing support. They are the ultimate model. To all my friends and colleagues in the profession especially the teaching staff of Lobogon Elementary school whom the research is dedicated to and for enlightening in the first glance of this research.

Again and again, above all... to HIM the glory !!!

#### BIBLIOGRAPHY

- Alberto, S. (2012). *Effective teacher professional development*. Learning Policy Institute
- Arnold, V.D. (2010). *Planning for effective instruction*. Retrieved from <https://www.tandfonline.com/doi/abs/10.1080/00131801.2010.500000>
- Avalos, B. (2011). *Teacher professional development in teaching and teacher education over ten years*. Teaching and Teacher Education, 27 (1), 10-20. <https://doi.org/10.1016/j.tate.2010.12.001>
- Aubusson, P., Ewing, R., & Hoban, G. (2012). *Action learning in schools: reframing teachers' professional learning and development*. Retrieved from <https://books.google.com.ph/books> on April 28, 2017.
- Bandura, A. (1977). *Social learning theory*. New Jersey: Prentice Hall.
- Basa Pilipinas, (2018). LAC Facilitator Guide.
- Cano, J. (2001). El rendimiento escolar y sus contextos. Revista Completense de Educacion, 12

- (1), 15-80.
- Chavez, A. (2014). *Collective competence development*.
- Darling-Hammond, L. (1996). "The quiet revolution: rethinking teacher development". *Educational Leadership*, 53 (6), 4-10, Retrieved from ProQuest Central Database.
- Darling-Hammond, Linda, Arthur E. Wise, and Stephen P. Klein. *A license to teach raising standards for teaching*. Jossey-Bass, Inc., Publishers, 350 Sansome Street, San Francisco, CA 94104, 1999.
- DepEd Order No. 35, s. 2016. "The learning action cell as a k to 12 basic education program school-based continuing professional development strategy for the improvement of teaching and learning".
- Destia, D., Chalchisa, C., & Lemma, G. (2013). "School-based continuous teacher professional development in addis abah: an investigation of practices opportunities and challenges". CICE Hiroshima University, *Journal of International Cooperation in Education*, Vol. 15 No. 3 (2013) pp. 77-94 <http://home.hiroshima-u.ac.jp/cice/wp-content/uploads/publications/>.
- Dewey, J. (1938). "Theories of education". *Journal of Inquiry & Action in Education*, 9 (1).
- Dial, J.C. (2008). "The effect of teacher experience and teacher degree levels on student achievement in mathematics and communication arts". B.S. Missouri Western State University (2000), M.A., Baker University (2003). Retrieved February 20, 2016 from [https://ww.bakeru.edu/pdf/SOE/EdD\\_Theses/Dial\\_Jaime.pdf](https://ww.bakeru.edu/pdf/SOE/EdD_Theses/Dial_Jaime.pdf)
- Dizon, N.H. & Orge, N.B. (2019). "Utilization of learning action cell (lac) session contents: perceptions among secondary social studies teacher". Zambales Philippines. *Journal of International Academic Research for Multi-disciplinary- Impact Factor 4.991, ISSN: 2320 - 5083, Volume 6, Issue 12, January 2019*.
- Friggard, A. (2002). "Does the computer lab improve student performance on vocabulary, grammar and listening comprehension?" ERIC Document Reproduction Service No. ED476749.
- Grimmett, H. (2014). "The practice of teachers' professional development: a cultural-historical approach". *Rotterdam, Netherlands: Sense Publishers, Vol.16*.
- Golosino, Torreon, et.al (2019). *Teachers' behavioral competencies and job satisfaction: A basis for proposed developmental plan*. Asian Intellect Research and Education Journal, Volume 13, with ISSN 2467-4885.
- Guskey, T. R. (2002). "Teacher efficacy, self-concept, and attitudes toward the implementation of instructional innovations". *Teaching and Teacher Education*, (1), 63-69".
- Jones, R. (2011). "Quality learning circle research making it happen". Onerahi Primary School (Published online).
- Kapur, R. (2018). "Factors influencing the students' academic performance in secondary schools". India.
- Leithwood, K., & Seashore-Louis, K. (2011). "Linking leadership to student learning". San Francisco, CA: Jossey-Bass.
- Little, J. (2003). "Professional community and the problem of high reform". *International Journal of Education Research* 37 (8), 693-714.
- Lobo, D. (2016). "21<sup>st</sup> century competencies and ict integration in the classroom: preparing students for careers in the current and future employment market". Masters' Thesis. Ontario Institute for Studies in Education of the University of Toronto.
- Luistro, A. (2016). "The learning action cell as a k to 12 basic education program school-based continuing professional development strategy for the improvement of teaching and learning".
- Lumayag, G., Bustamante, E., Banogbabog, R., & Lumayag, E. (2017). "Google sites for learning action cell in the selected schools". Dalaguete Districts Dalaguete National High School, Poblacion, Dalaguete Cebu.
- Malalis, L. (2019). "The efficiency of teacher's classroom-based management in reading students' stress". Book from a study in Bohol Island State University, Candijay, Campus.
- Miner, T. (2004). "Using technology to enhance learning: instructor-or-student-moderated discussion boards: which are more effective?" Retrieved from [http://www.ccome.org/scholars/0405/TomMiner\\_final\\_report.pdf](http://www.ccome.org/scholars/0405/TomMiner_final_report.pdf).
- Mizell, P. (2010). "Professional learning in the academe". *Journal of Education*.
- Munck, R., & McConnell, G. (2009). "University strategic planning and the foresight/future approach: an irish case study". *Planning for Higher Education*. 38 (1), 31-40. Retrieved from ERIC Database.
- Murchan, D., Tohasa, J., Loxley, A., & Johnson, K. (2009). "Teacher learning and policy intention: selected findings from an evaluation of a large-scale programme of professional development". Republic of Ireland. *European*



- Journal.
- Mushtaq, I., Khan, S.N. (2012). "Factors affecting students' academic performance. *Global Journal of Management and Business Research*, Vol. 12, issue 9, version 1.0.
- Nelson, T. H., Deuel, A., Slavitt, D., & Kennedy, A. (2010). *Leading deep conversations in collaborative inquiry groups*. *The Clearing House*, 83 (5), 175-179. Retrieved from ProQuest Central Database.
- Pourhosein Gilakjani, A., & Sabouri, N.B. (2014). *Role of Iranian EFL teachers about using pronunciation power software in the instruction of English pronunciation*. *English Language Teaching*. 7(1), 139-148.
- Rice, J.K. (2010). "*The impact of teacher experience: Examining the evidence and policy implications*". National Centre for Analysis of Longitudinal Data in Educational Research. Washington, DC: Urban Institute. Retrieved January 24, 2016 from <http://www.urban.org/sites/default/files/alfresco/publication>.
- Rosas, C., & West, A. (2016). "*Teachers beliefs about classroom, management: pre-service and in-service teachers' beliefs about classroom management*". *International Journal of Applied Educational Studies*, 5, 54. Book from a study in Bohol Island State University, Candi-jay, Campus.
- Roxas, E.M. (2018). "*Training needs of elementary teachers: input to localized school learning action cell (slac) planning*". Ibaan, Batangas.
- Salaun, A. (2019). "The impact of learning action cell on teachers' teaching capability and pupils' academic performance. Book from a study in Bohol Island State University, Candi-jay, Campus.
- Saxena, P. (2017). "*Planning used in every field*". Linways Technologies Pvt. Ltd., Academic Management System Provider for Education.
- Stronge, J. (2007). "*Qualities of effective teachers*". 2<sup>nd</sup> Ed. Alexandria, VA: Association for Supervision and Curriculum Development.
- Suarez, M. (2017). "*The effectiveness of cluster learning action cell in science on improving teaching-learning process*". Meralco, Ave. Cor. St. Paul Road Pasig City.
- Susan Lovett & Alison Gilmore (2010). *Teachers' learning journeys: Then quality learning circle as a model of professional development*. Pages 189-211/ Published online.
- TALIS. (2013). "*Teaching in focus*". OECD Report. Paris, France: Author.
- Tasner, V., Zyeglic, M., Mojica and Mencin, Ceplak, Metka (2017). "*Gender in the teaching profession: university students' views of teaching as a career*". *CEPS Journal* 7 (2017) 2, S. 47-69.
- Timucin, M. (2006). "*Improving call in the efl context*". *ELT Journal*, 60 (3), 262-271. <https://doi.org/10.1093/elt/cc1006>.
- The importance of school learning action cell. (2015). Retrieved from <http://www.hermosa.gov.ph/index.php/education>.
- Torreón, L. & Trabajo (2019). *Occupational stress and teaching effectiveness as basis for intervention measure*. *Asia Pacific Journal of Multidisciplinary*.
- UNESCO ISO, (2006). "*Teachers and educational quality*".
- UNESCO, (2014). "*EFA global monitoring report teaching and learning: achieving quality for all*".
- Vygotsky, L. (1962). "*Education theories in practice*". *Journal in Education*.
- Whitehouse, C. (2011). "*Effective continuing professional development for teachers*". Manchester, UK: Center of Education Research and Quality.
- Yap, R.A. (2015). "*Building professional learning communities with the aid of activity theory*". Paper presented at the 7<sup>th</sup> ICMI-East Asia Regional Conference on Mathematics Education, Philippines. Retrieved from <http://mathted.weebly.com/uploads>.
- Yara, P. O. (2009). "*Relationship between teachers' attitude and students*". *Academic Achievement in Mathematics*" In some selected Senior Secondary Schools in Southwestern Nigeria. *European Journal of Social Sciences*- Volume 11, Number 3. Retrieved June 7, 2009.

# DEVELOPMENT COMMUNICATION STUDENTS' PERCEPTION OF SOCIAL MEDIA AS STRATEGIC COMMUNICATIONS TOOLS

**PERLITA B. LOVERITA, DALL**  
Faculty Member  
College of Arts and Communication  
University of Eastern Philippines  
Catarman, Northern Samar

## ABSTRACT

This study sought to determine Development Communication students' attitudes and perceptions of social media. It also sought to learn the impact of education on college students' attitudes and perceptions of social media as strategic communication tools. This study was conducted at the University of Eastern Philippines in the province of Northern Samar. The findings showed that Dev Com students demonstrated media literacy in terms of social media. Even though the current study did a good job exploring the contextual explanations of social media use and attitudes among students majoring in Development Communication, it would have made sense to explore those explanations among other majors for comparison. Future media literacy research could involve more in depth analysis of students' social media use and their ability to analyze and create messages, understand economic and social contexts, and recognize the way social media shape understanding of "ourselves" and experience of reality. As this study suggests, students are looking to social media among their top sources for news and information. Social media are not only changing the way people communicate with one another. As a result, social media have enormous impact on advertising media planning in particular. Social media require a radically different mindset from traditional media planning.

*Keywords: development communication perception, social media, strategic communication tools*

## INTRODUCTION

The communication environment has changed significantly during the last two decades. These changes have affected both the theory and practice of all areas of communication. Among these changes include a more integrated approach to development communication including, but not limited to, blurring the lines of advertising and public relations. Development communication has emerged as a result of ever increasing segmented audiences of consumers empowered by options. An integrated campaign means that all communication efforts work together, and result in synergy: "the whole is greater than the sum of its parts" (Wells, Burnett, & Moriarty, 2003). Consumers today are so inundated with commercial messages, it is no longer possible to rely on one-way communication with the consumer that is offered by traditional media such as television,

radio, magazines and newspapers. Development communication is communication developed and transmitted, usually through paid media sources, to consumers in order to sell goods and services. To be effective in communications in the 21st century, advertising and public relations must be interactive or two-way communication in which the consumer can actually engage with the brand. Development communication strives to build a long-term relationship between provider and clients by involving the targeted individual in an interactive or two-way exchange of information (Blakeman, 2007).

Development communications are a subset under the umbrella of strategic communications, and the emergence of the Internet and social media have had a tremendous impact on the theory and practice of these disciplines. Advertising spending on the Internet has outpaced all other traditional media. In the last two years, the num-

ber of social networking tools and the number of people using those tools have exploded. Thus the rules are constantly changing and there is considerable uncertainty on how to employ these tools from a strategic perspective. Professionals in the industry have endured the “trial by fire” method of learning how to effectively use social media as strategic communication for products and businesses, and there is still much to be learned. In developmental communications education, it is assumed that students know as much or more than as educators do about employing social media as effective communication tools. After all, they were first to move into MySpace, find friends on Facebook, share photos on Flickr, and utilize YouTube. But does that mean they will intuitively know how to use these tools strategically? Do they think about these tools outside of their own personal communication? Do they connect the concepts that they learn in developmental communications classes, such as building relationships and connecting with strategic publics for a client or business, with social media? Or do they need to be educated? It is these and similar questions that the researcher hopes to answer with this study.

The different areas of communications were once very compartmentalized in their respective silos. Public relations, advertising, sales promotions, events and personal selling were often separate entities with different communications and objectives. Those areas are merging to unify the messages and communicate more meaningfully with customers on a united front. As the industry has moved to a more integrated approach, advertising and public relations education also has evolved (Larsen & Len Rois, 2006). Many programs have moved to an integrated curriculum, which includes integration of advertising, public relations, and marketing concepts through a strategic communications approach.

The emergence of new digital technologies and social media has also had a dramatic impact on the invariable change in communication. The term, social media, is the new “buzz word” in the communications and marketing industry. It is the current label for digital technologies that allow people to connect, interact, produce and share content. These technologies have donned many labels including: social networking, peer media, new media, digital media, NextGen PR, and Web 2.0. Among the terms associated with these technologies includes an alphabet soup of abbreviations and acronyms: user-generated content (UGC), consumer-generated media (CGM), computer-mediated communication (CMC), and multi-

-user domains (MUDs). The term, social media, is yet to be defined by Merriam-Webster’s dictionary, but there is an active Web site titled, “Social Media Defined,” which provides a four-paragraph answer to the question: “What is Social Media?” The online encyclopedia Wikipedia provides the following definition: Social media are media designed to be disseminated through social interaction, created using highly accessible and scalable publishing techniques. Social media supports the human need for social interaction, using Internet- and web-based technologies to transform broadcast media monologues (one to many) into social media dialogues (many to many). It supports the democratization of knowledge and information, transforming people from content consumers into content producers (“What is Social Media?, n.d.) .

Social media have been adopted from its inception by public relations, advertising and marketing practitioners as tools for communicating with strategic publics. Wright and Hinson (2009) have established that public relations professionals perceive social media positively with respect to strategic communication. Given that social media are having an impact on professionals in the industry, the researcher questions if social media are having a similar impact on college students in general and students studying in the area of developmental communications. To address these issues, the researcher posited five research questions. Because of the integration of public relations and advertising curriculum across the country, known as strategic communications, students majoring in public relations and advertising are grouped and measured together for the purpose of this study.

## OBJECTIVES OF THE STUDY

This study has two primary objectives:

1. It sought to understand students’ attitudes and perceptions of social media. It is important for educators and curriculum leaders to have an appreciation of students’ knowledge base of social media and how they employ it in their construction of knowledge and reality.
2. It also sought to learn the impact of education on college students’ attitudes and perceptions of social media as strategic communications tools. Understanding students’ attitudes and perceptions of social media are particularly important for educators in marketing, advertising, and public relations or strategic communications because of the impact social me-

dia are having on these practices. It is also valuable for professionals in the industry, who are hiring recent college graduates, to gain insight into how students perceive social media in their own lives and as strategic tools.

## METHODOLOGY

The study adopted an exploratory research design whereby effect of social media on developmental communication skill of students was investigated.

Because of the minimal number of respondents, complete enumeration was employed for the respondents from the College of Arts and Communication. There were only 102 Development Communication students who were enrolled in the first semester, SY 2017-2018 from first year to fourth year level. Therefore, no sampling technique was used since all of the respondents were used as the subject of this study.

The study involved both qualitative and quantitative data collection methods. Qualitative data was collected through Focus Group Discussions (FGDs) and key informant interviews. Three FGDs were done by gathering three students one from each year level. In addition, interviews among three students randomly selected was held. An interview guide was made for this activity. Finally, a questionnaire was used to collect quantitative data.

Most of the statistical analyses in this study were conducted using SPSS, except for the categorical analysis, which was computed manually. Regression analysis was used to establish the cause and effect relationship between social media skills and developmental communications ability of the students.

## CONCLUSION

Social networking sites offer considerable audience and advertising potential for the future. Young audiences are turning attention to their smartphone screens to engage in social networking more often than they are turning to the television screen, movie screen or gaming screen combined. As this study suggests students are looking to social media among their top sources for news and information. Social media are not only changing the way people communicate with one another, but also with how people are communicating with traditional media and gathering information.

As a result, social media are having an enormous impact on advertising media planning in particular. Social media requires a radically different mindset from traditional media planning.

The findings in this study indicate that development communication students demonstrated media literacy in terms of social media. Even though the current study did a good job exploring the contextual explanations of social media use and attitudes among students majoring in development communications, it would have made sense to explore those explanations among other majors for comparison. Future media literacy research could involve more in-depth analysis of students' social media use and their ability to analyze and create messages, understand economic or social contexts, and recognize the way social media shape understanding of "ourselves" and experience of reality.

## FINDINGS

Most of the DevCom students agree that the emergence of social media has changed the way organizations communicate. This means that organizations are taking advantage of the technology to communicate their goals as well as their products in case of businesses.

Most DevCom students strongly agree that social media and mainstream media such as television and newspapers have made communications more instantaneous. They have forced organization to respond more quickly criticism. Most government offices nowadays have social media arm where they can upload their announcement or press releases.

Most students strongly agree that the information disseminated through blogs and other social media of the organizations influence leaders and members of other target audiences. The DevCom students agree that social media serve as watchdog for traditional mainstream media. This means that these students see the social media as check and balance of the information provided by the television network or daily broadsheets.

## RECOMMENDATIONS

In light of the findings of this study, it is recommended that a further investigation be conducted to investigate social media usage across different age norms. A cross-sectional research design maybe used for this study. In addition, future so-

cial media literacy study could involve more in-depth analysis of students' social media use and their ability to distinguish deep-fake news in the online social media platforms and recognize how fake contents shift their understanding of reality.

## REFERENCES

### Books

- Bandura, A. (1977) *Social Learning Theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Berger, P. & Luckmann, T. (2016). *The social construction of reality: a treatise in the sociology of knowledge*. Garden City, NY: Doubleday & Company, Inc.

### Website

- Bush, M. (2009). As Media Market Shrinks, PR Passes Up Reporter, Pitches Directly to Consumers. *Advertising Age*. n.d. [http://adage.com/article?article\\_id=139864](http://adage.com/article?article_id=139864)
- Compassion in Politics. (2008). Top Crowdsourcing Web sites, Resources, and Companies. Message posted to <http://compassioninpolitics.wordpress.com/2008/10/01/>
- College Students Use of Social Networking (2018). n.d. <http://www.emarketer.com/Article.aspx?R=1006557>
- Elgan, M. (2009). Why social media is killing (bad) TV. n.d. <http://www.internetnews.com/commentary/article.php/3803556/Why+Social+Media+is+Killing+Bad+TV+News.htm>
- Loretto, P. (2016). Employers seek college students to assist with social media. Message posted to <http://internships.about.com/b/2009/10/03/emploters-seek-collegestudents-to-assist-with-social-media>





