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inside front cover

**INTERNATIONAL JOURNAL  
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- The paper is recommended for publication but subject to minor revisions.

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3. The manuscript should be submitted via email as Microsoft Word or PDF file to the Managing Editor at email address: [esagarino@uic.edu](mailto:esagarino@uic.edu). The author(s) should need to submit the following separately:
  - a. The manuscript's title page which contains information to identify the author (not forwarded to the reviewers),
  - b. The manuscript with the title page and all other indentifying information removed,
  - c. Any necessary supplement files such as experiment instruction, and
  - d. A copy of research questionnaire or tools for referral by the editors and reviewers.
4. Revisions must be submitted within the date provided by the managing editor.

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Technically a simple picture frame, the cover design symbolically represents the big picture perspective of the essence of research publication. Conceptualized by Mary Gabrielle G. Barluado, the minimalist design features only two figures: an outside border of solid color and an inner quadrilateral of gradient hue. The former stands for strong framework foundation of the Journal's publication process while the latter, with the imposing Journal name and monogram, symbolizes the variety of the featured articles. This design will be applied on the covers of the **International Journal of Education Research for Higher Learning** as a consistent identity; only the color will be changed per issue. Also, the picture frame was designed blank not only to emblemize the limitless possibilities in education research, but also to provide artistic freedom for the editors to feature a teaser photograph related to any of the published articles in the issue.

## About the Monogram

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**Table of Contents**

<b>A Structural Equation Model for Restaurant Industry Vertical Integration</b> Melecio A. Sy, Jr.	1
<b>Understanding Maguindanaon Dance Music: A Phenomenology in the Context of Archival Review</b> Jonar L. Narvacan and Porferia S. Poralan	13
<b>Travails of Out-Of-Field Teachers Handling English Subjects: A Phenomenology</b> Vira May P. Dueñas and Teresita Q. Adriano	29
<b>Predictors of English Language Self-Efficacy of Junior High School Students</b> Kim Rodel C. Camillo and Maria Christa G. Montebon	45
<b>Basic Psychological Needs and Behavioral Regulation in Exercise as Predictors of Physical Activity Engagement of the Senior High School Students</b> Doneza L. Escarda and Porferia S. Poralan	57
<b>Characteristics and Public Speaking Class Anxiety of the Senior High School</b> Judie Ann D. Boligor and John Rey A. Aleria	71
<b>Manager’s Personality Traits and Managerial Practices as Influencers to the Performance of Agribusiness in Region XI, Philippines</b> Ralph H. Celeste and Joseph Elmer G. Noval	81
<b>The Knowledge Management and Performance Status of Agricultural Cooperatives in Region XI</b> Cheryll B. Oray and Mary Jane B. Amoguis	89
<b>The Performance Status of Credit Cooperatives in Region XII, Philippines</b> Bobby D. Capa and Mary Jane B. Amoguis	99

**PEDAGOGICAL Content Knowledge, Online Learning  
Readiness, and Practice Teaching Performance  
of Mathematics Pre-Service TEACHERS**

Johnmark B. Lapuz and Lolly Jean C. Simbulas, PhD

107

# A Structural Equation Model for Restaurant Industry Vertical Integration

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## ABSTRACT

The decision to adopt vertical integration (VI) is firm-specific, but there is a common practice among businesses in an industry to maximize the massive potential benefits of VI. This study aims to develop a VI adoption model in the restaurant industry in Davao City. The study used a validated survey questionnaire among 264 restaurant owners and managers randomly selected using a two-step sampling process including geographical classification and randomly selecting from the list of restaurants provided by the City Government Business Bureau. It is a quantitative study where the data were subjected to a structural equation model (SEM). The results revealed that VI is present but limited to procurement, production, restaurant services, and online marketing. Raw materials were outsourced while delivery services to customers through third-party delivery services. The VI slowly increased over ten years except for online marketing, which has grown significantly in just a few years. The endogenous and exogenous variables were correlated and established the linear regression model. The SEM's best fit model revealed that strategic motives (SMOT) and market factors (MFAC) influenced VI adoption while MFAC is the best predictor. The model revealed that favorable market factors may lead restaurants to adopt VI.

**KEYWORDS:**market factors, strategic motives, structural equation model, supply chain, vertical integration adoption

## INTRODUCTION

"To make or buy" is an important strategic business decision that creates a possible strategic choice in Vertical Integration (VI). Globally, Apple, Netflix, and Nutriva Group models are some illustrations of successful vertical integration models. Customer centricity, growth, and sustainability are the objectives of VI of companies, especially with the growing internationalization and global competition (Zhu et al., 2019). Riordan et al., (2019) posited that VI among multinational companies brings cost-effectiveness from the customers' viewpoint. It allows companies to innovate structures and systems to strengthen customer management, as in the case of AT & T (Tyagi, 2018), Springer Nature of Switzerland (Pussep et al., 2012), and Shivamrut Dairy Farm of India (Patil, 2020). In the Philippines, Herrera et al. (2020) found that among feed mill enterprises of cooperatives, business success is achieved by gaining control of the supply chain with a high degree of VI.

The problematic issues in VI include the trend of companies' preference for outsourcing over VI. In most companies, outsourcing is more pronounced, overlooking the possible benefits of VI (Kaiser et al., 2020). Another issue in VI is the mixed

acceptance among supply chain practitioners and literature. Authors claim opposing views on VI were some reason it will do good to companies while others claim it as a disadvantage. Ursino (2015) claimed VI applies to the cellphone industry, and Luco et al., (2020) argue that VI eliminates double marginalization. However, Leahy et al., (2015) claim that they can be implemented in specific scenarios. Kaiser et al., (2020) claim that the degree of VI has a diminishing relationship with financial performance in the automotive industry. Finally, industry constraints prevent some industries from implementing VI, as in the case of the coffee industry of Costa Rica in the study of Macchiavello et al., (2017). In the study of Yamawake et al. (2018), there is an implication that small market-size industries tend to sway away from VI.

Globally, VI can be found among different industries and at different levels of integration. It can be found in farming (Kalantari et al., 2018; Gallizo et al., 2019; Patil, 2020), manufacturing (Kaiser and Obermaier, 2020; Hamdaoui and Bouayad, 2019), the oil industry (Marchak, 2003), the telecommunications (Tyagi, 2018; Bulahan et al., 2014), in the coal industry (Sun et al., 2019), in the aviation industry (Fehn, 2019), in the health care (Cuesta et al., 2019) and business in general (Karbowski and Prokop, 2019). However, in the literature reviewed, the degree of VI differs between firms. In the Philippines, there are few recorded journals on VI, including the study of Vertical and Horizontal Integration of the telecommunications sector by Bulahan et al. (2014) and the VI in the mango industry of Briones (2013). There is evidence that VI is beneficial in ensuring supply stability, and information reliability, and achieving VI through mergers and acquisitions.

The study's objective is to develop a VI model for the restaurant industry among small and medium enterprises utilizing the exogenous variables Strategic Motive, Business Efficiency, Firm Economies, and Market Factors as motivations for the restaurant industry to adopt VI as the endogenous variable. It will also determine the factors that best predict strategic adoption to integrate as applied to restaurants vertically.

The primary gap in research on VI appears to be on unexplored issues VI, including the geographical contextualization of VI in the Philippines, especially in Davao City. In the literature, the reasons for the VI adoption include intense market competition, supplier availability, and other market conditions conducted in various market conditions. Since markets are characterized differently based on geographical considerations, there is a need to understand VI from the local market milieu. In addition, VI has advantages and benefits indicated by several authors; it also has its limitations, as in the case of the study of Kaiser et al., (2020), where there exists a positive but diminishing relationship between VI and firm performance and this study would like to reveal if this condition is proper to the restaurant industry. Another gap in the literature is that VI success varies across industries based on business performance and industry structure. Contextually, this study will understand the VI level of the restaurants in Davao City.

## METHODS

This study employed Structural Equation Model (SEM), a multivariate statistical technique that test relationships between observed and latent variables while incorporating measurement errors. Hult et al. (2006) recognized SEM as a statistical tool in international business. The said study indicated that SEM provides evidence of

causality. However, it was found that most studies on SEM are cross-sectional while some SEM studies are longitudinal, which was found to provide better evidence of causality. According to the authors, it is also a must for SEM studies that demographic characteristics are discussed in terms of the normality of distribution. Finally, the study concluded that SEM has significantly contributed to international business research. Kaplan (2009) articulated that SEM is an analytical method used to confirm theoretical models that originated in psychometrics. It is a technique that allows the confirmatory test of the structure of measurement scales.

This study was conducted in Davao City, Philippines, the third major city in the country and rich in natural resources. This study was specifically conducted among the restaurants in the three congressional districts of the city. The total population of the restaurants was provided by the Business Bureau of the City Government in Davao, indicating a total of 849 restaurants from the three congressional districts of Davao City as of 2021.

The sampling procedure used in this study is a two-step process, which includes cluster sampling and stratified random sampling. The cluster sampling grouped the population of restaurants according to the congressional districts of Davao City, and the sample size was computed as a percentage of each congressional district's restaurant population. The calculated sample size is 265 respondents, including managers and owners. The sample size per congressional district is 183 for district 1, 60 for district 2, and 22 for district 3. However, the actual number of respondents is 264 due to unreturned SQ. The second step utilized stratified random sampling. The restaurants were classified according to the company's capitalization to determine the size of the restaurant, only small and medium enterprises were included. The research instrument used in the study is a self-made, structured survey questionnaire subjected to a validity and reliability test by five-panel members. The measurement scale used is an ordinal measurement scale and the Likert scale. The Likert scale was popularized in 1932 and has become a popular instrument in research (Pornel et al., 2013).

## RESULTS AND DISCUSSION

The study results are presented in this section, beginning with the pilot study results, and the demographic profile of the respondents, which will help understand the results of the study, and the outcome of the structural equation model. The pilot study result is presented in Table 1. It was conducted among 30 respondents of restaurant owners, managers, and business education professionals in Davao City.

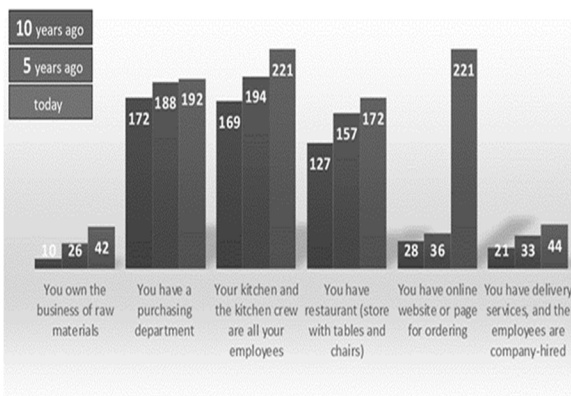
**Table 1.**  
*Reliability Test*

Variable Type	Variable	Cronbach's $\alpha$	
		Pilot Test	Post Test
Exogenous	Strategic Motive	.945	.899
Exogenous	Business Efficiencies	.951	.895
Exogenous	Firm Economies	.874	.903
Exogenous	Market Factors	.934	.897
Endogenous	Vertical Integration Adoption	.910	.901

The use of a participatory pilot survey was recommended in the study by Gosselin et al. (2019), and this is done to test the reliability of the questionnaire. The result showed that the variables have acceptable Cronbach's coefficient levels with coefficients above .70 and confirmed the endogenous and exogenous variables' relative degree of internal consistency. In this study, a pilot test was conducted initially, and a retest was done after the final results. The Cronbach's alpha of the two tests was compared, indicating similar acceptability.

The gender and age profiles of the respondents are generally within the age range of 35-44 (38.64%) and 45-54 (21.59%). The managers and owners of the businesses indicated that they are the young generation managing the food businesses. In terms of gender, the majority, or 64%, are male, while 36% are female.

The profile of the respondents in terms of their geographical location shows a realistic reflection of the conglomeration of the population of restaurants in Davao City. The restaurant's population includes 58% in district 1, the downtown area, 28% in district 2 or northeast Davao City District, and 14% in district 3, the Calinan-Toril District found in northwest Davao City. The restaurant's profile is presented in Fig. 1 on a descriptive level. The data shows that most restaurants do not own their raw materials; they just procure them from external suppliers.



**Fig. 1. Restaurant Business Structure**

What is notable among restaurant structures is that they have procurement teams, procurement officers or buyers internally, and internal company employees over the years. This finding is factual from 10 years ago until today, and there has been an improvement over the years from 172 to 192 restaurants. In addition, restaurants too own their kitchen and have regular employees as kitchen crew as well as most restaurants own their dining areas/buildings and employ a regular dining crew. This finding has been factual for kitchen and dining areas ten years ago, with some improvements over time.

The data provides a glimpse of the significant increase in online websites, online home pages, and social media. Some 10 and 5 years ago, most restaurants did not maintain an online presence; however, today, most if not all restaurants have websites or social media presence to support their businesses.

## **Levels of Exogenous Variables**

The mean scores of the latent variables are Strategic Motive (3.744), Business Efficiencies (3.812), and Firm Economies (3.824) were rated high, while Market Factors (4.226) were rated very high. The high rating of SMOT means that the strategic motive of restaurants is often observed. In addition, the high rating of BEFF manifests that the business efficiencies of the restaurants are high. Moreover, the high rating of FECO means that the firm economies are high, while the very high rating of MFAC means market factors affect the business very strongly.

## **Level of Endogenous Variable**

The level of the exogenous variable has a mean of 3.876 (SD=0.956). The result shows that the VI of restaurants is rated high, including all the indicators. It means that the vertical integration of the restaurants in the city is often observed. Fig. 1 helped us understand the results of the respondent's high rating for economies of scope (EOS), firm capabilities (FCP), and quality externalities (QEX). In like manner, Fig. 1 showed the VI structure of restaurants in Davao City is often limited and not complete VI. Firm capabilities were rated the highest among the indicators. This result indicates that the study respondents recognized the importance of adding, buying, and developing assets to improve efficiencies, especially cost efficiencies. The high rating of VI can be correlated with the growth of the restaurants over the year, as presented in Fig 1.

## **Relationships of Variables**

All exogenous variables such as SMOT, BEFF, FECO, and MFAC are significantly correlated with the endogenous variable VIAD ranging from  $r=.637$  to  $r=.744$ , significant at  $p<.000$ . The result shows that MFAC has the highest correlation with VIAD at  $r=.744$  significant at  $p<.000$ . The correlation analysis helped guide in coming up with the trials for the best fit model. The correlation results reflect the outcome of the best-fit model in many respects. All indicators were also correlated at a significance level of  $p<.000$ .

## **Regression Analysis**

Table 2 presents the regression model. The four assumptions of linear regression were met, including a normality test using a normal distribution curve, the assumption of linearity, homoscedasticity, and the test of independence. The significant influence of SMOT, BEFF, FECO, and MFAC on VIAD is presented in a model showing the regression p-values of the model are mixed. SMOT and MFAC show the p-values are significant, while the p-values of BEFF and FECO were not significant.

**Table 2**  
*Regression Model*

	Model	Unstandardized	Std Error	Standardized	t	p	Colinearity Statistics	
							Tolerance	VIF
Ho	(intercept)	3.876	0.059		65.906	<.001		
H <sub>1</sub>	(intercept)	0.302	0.182		1.653	0.099		
	SMOT	0.223	0.072	0.194	3.072	0.002	0.363	2.753
	BEFF	0.182	0.072	0.164	2.531	0.012	0.347	2.885
	FECO	0.108	0.065	0.103	1.674	0.095	0.383	2.609
	MFAC	0.386	0.056	0.422	6.844	0.001	0.382	2.620
R = 0.790		R <sup>2</sup> = 0.623	F = 107.193	p = 0.05				

This model shows that the restaurant's strategic motive (SMOT) and the various market factors (MFAC) influence the restaurant's decision to adopt vertical integration (VIAD). The model further presents that SMOT influences VIAD 22.3% of the time while MFAC influences VIAD 38.6%.

**Best Fit Model**

The best fit model was derived by ensuring it passed several criteria set under the structural equation model (SEM). The best fit model possessed values that fit the SEM criteria, including chi-square/ degrees of freedom, the normed fit index, the goodness of fit index, the Tucker-Lewis index, RMSEA, and the comparative fit index. The standards used for this study include the chi-square, where the value must be higher than zero but lower than 2, the normed fit index, the Tucker-Lewis index, the goodness of fit index, and the comparative fit index be greater than 95%. The root means square of the error approximation value must be less than 0.05, and the p-close value must be greater than 0.05.

The best fit model is shown in Fig. 2 using study criteria that fall within the acceptable range of all the test indices. Although the hypothesized model indicates relationships among the latent variables, it does not determine their influence on each other. The best fit model shows that among the four exogenous variables, the latent variables of the study, only SMOT and MFAC were found to influence VIAD significantly.

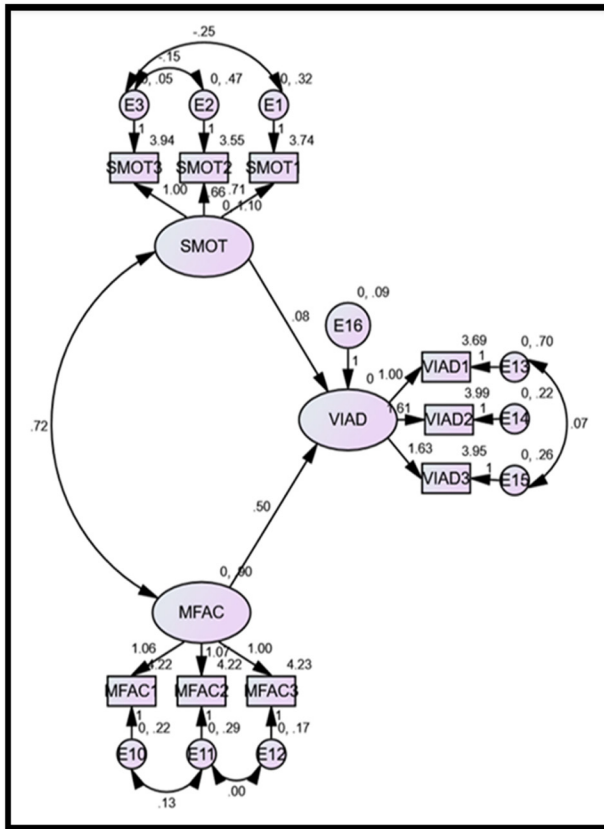


Fig. 2. Best Fit Model

This result came out after some modifications to the hypothesized model resulting in the best-fit model. The result means that the respondents who are owners or managers of restaurants to adopt a VI strategy are primarily influenced by the strategic motive of the business and the various market factors.

Vertical integration and strategic motives of a business were correlated in many studies, including those of Ursino (2015), ILO (2017), Chen et al. (2018), and Sun et al. (2019), among others. Although correlated, businesses vary in their strategic reasons for adopting VI, including improving organizational performance, effectiveness, proper allocation of resources, and innovation. Market factors, too, were correlated with VI. Market factors like the industry's size, industry competition, industry barriers to entry, and demand requirements, among many others, are some reasons to decide to adopt VI. This finding supports the studies of Hamdaoui et al., (2019) and Patil (2020). In several studies, authors identified industry structure, transaction costs, and market conditions as factors to vertically integrate. However, the variations in the market factors may or may not be the reason for VI. When market factors are favorable and effective, it may be the reason to integrate vertically. The authors pointed out that a low

level of food security in the said study and a strong dependence on food importation may make market conditions not statistically significant. Finally, Varchenko (2021) found that unfavorable conditions in the industry cause outflow of capital which may dissuade firms from VI.

In contrast, the results of this study show that market factors are statistically significant because the market conditions of Davao City are favorable to the restaurant industry. Davao City has been rich in vegetables, fruits, crops, and livestock, among many others, for decades back, as pointed out by Barth (1982), until more studies of a farm growing output, as pointed out by Murray-Prior et al. (2011).

The structural equation model also revealed that the observed variables that have formed part of the best fit model include strategic planning, business goals, and business growth sustainability of the latent variable SMOT. In addition, the observed variables of market coverage, industry competition, and industry entry of the latent variable market factors were also included in the best-fit model. Finally, all observed variables of the latent variable VIAD were also included in the best fit model, including economies of scope, firm capabilities, and quality externalities. Most of these observed variables were correlated with each other and influenced their respective latent variable. However, the study's findings, especially the best fit model, show no indirect relation to other latent variables.

The results show that the best fit model variables include the exogenous variables SMOT and MFAC, towards the endogenous variable VIAD. It does not include indirect effects on any exogenous variables towards the endogenous variable. The best fit model shows that the regression coefficient at which SMOT influences VIAD is .080, although the value is meager but still significant at  $p < 0.05$ . In addition, the regression coefficient of MFAC is .503 significant at  $p < 0.05$ , making MFAC the best predictor of the model.

In addition, the model also found BEFF and FECO to be insignificant. In many studies, business efficiencies and firm economies are strongly associated with SMOT. Thus, BEFF and FECO may not have been included in the model, but SMOT in the model indeed represents the variables. Table 3 provides the data of the model estimates of the regression coefficients.

**Table 3.**  
*Estimates of Variable Regression Weights in Best Fit Model*

			Estimate	S.E.	Beta	C.R.	P-Value
VIAD	<---	SMOT	.080	.039	.135	2.065	.039
VIAD	<---	MFAC	.503	.062	.774	8.046	***
SMOT3	<---	SMOT	1.000		.979		
SMOT2	<---	SMOT	.662	.068	.711	9.717	***
SMOT1	<---	SMOT	.714	.069	.797	10.326	***
MFAC3	<---	MFAC	1.000		.918		
MFAC2	<---	MFAC	1.074	.053	.884	20.384	***
MFAC1	<---	MFAC	1.060	.048	.906	21.965	***
VIAD1	<---	VIAD	1.000		.594		
VIAD2	<---	VIAD	1.608	.156	.903	10.326	***
VIAD3	<---	VIAD	1.629	.146	.892	11.145	***

## CONCLUSION

The empirical results helped shape the conclusions. The study concludes that Vertical Integration is present among restaurants in a limited fashion. The descriptive profile of the restaurants supports the conclusion by illustrating the VI structure of the supply chain of the restaurant industry in Davao City, indicating that it is commonly limited to procurement, production, restaurant services, and online marketing. The raw materials are still widely outsourced, while delivery services to customers are similar and widely used third-party delivery services. Vertical integration has increased over time among restaurants in Davao City since ten years ago. More importantly, online channels for marketing increased significantly and faster over a few years. The adoption of VI is firm-specific, although there exists a common practice among many restaurants within the industry. In the case of the restaurant industry in Davao City, the vertical integration structure is a portion upstream and a part downstream, and seldom do companies practice complete vertical integration.

This study also found that all exogenous and endogenous variables were correlated, and the correlations between latent and observed variables were all strong positive relationships. The respondents rated market factors with a very high rating among all the exogenous variables. In addition, The study generated the best fit model; this study concludes that strategic motive and market factors were found to significantly influence the decision of restaurant owners and managers to integrate vertically. When SMOTs are active and embedded in organizational structures and processes, it may pave the way for VIAD. Likewise, on MFAC as the best predictor of VIAD, the study concludes that the decision of the restaurants to VI is influenced strongly when market factors are favorable to the company. However, no causal relationship exists between the exogenous variables SMOT and MFAC in the best-fit model.

## REFERENCES

- Barth, G. A. (1982). Food supply, distribution, and marketing in Davao City, Philippines (Doctoral dissertation, University of Colorado at Boulder).
- Briones, Roehlano M. (2013). Market Structure and Distribution of Benefits from Agricultural Exports: The Case of the Philippine Mango Industry, PIDS Discussion Paper Series, No. 2013- 16, Philippine Institute for Development Studies (PIDS), Makati City.
- Bulahan, Lyndon & Pestano, Zenon & Dacanay, Jovi & Galeon, Francis Jake & Manalili, Rafael.(2014). Industry Monitor: Vertical and horizontal Integration as a strategy in the Philippine telecommunications industry.
- Cuesta, J.I., Noton, C., & Vatter, B. (2019). Vertical Integration between Hospitals and Insurers. HEN: Hospitals (Topic).
- Fehm, Bjorn (2019). Aviation Forum Munich: Vertical Integration on the way back. Leeham News and Analysis.

- Gosselin, A., Carillon, S., Coulibaly, K. et al. (2019) Participatory development and pilot testing of the Makasi intervention: a community-based outreach intervention to improve sub-Saharan and Caribbean immigrants' empowerment in sexual health. *BMC Public Health* 19, 1646.
- Hamdaoui, Mohamed & Bouayad, Brahim. (2019). Determinants and Effects of Vertical Integration on the Performance of Moroccan Manufacturing. *Athens Journal of Mediterranean Studies*. 5. 10.30958/ajms.
- Herrera, Maria Noriza Q. Herrera; Depositario, Dinah Pura T.; Gutierrez, Arlene C.; and Velasco, Dia Noelle F. (2020). An Analysis of Key Success Factors (KSFs) of Cooperative Feed Mill Enterprises in Batangas Province, Philippines. *EasyChair.org*.
- Hult, G. Tomas M. & Ketchen, David & Cui, Anna & Prud'homme, Andrea & Seggie, Steven & Stanko, Michael & Xu, Shichun & Cavusgil, S. (2006). An Assessment of the Use of Structural Equation Modeling in International Business Research. *Research methodology in strategy and management*.
- Kaiser, Florian, and Obermaier, Robert (2020). «Vertical (Dis-)Integration and Firm Performance: A Management Paradigm Revisited,» *Schmalenbach Business Review*, Springer; Schmalenbach-Gesellschaft, vol. 72(1).
- Kalantari, Fatemeh & Tahir, Osman & Akbari, Rahele & Azemah, Nur. (2018). The Importance of the Public Acceptance Theory in Determining the Success of the Vertical Farming Projects.
- Kaplan, D. (Ed.) (2009). *Structural equation modeling (2nd ed.): Foundations and extensions (2nd ed.) (Vols. 1-10)*. SAGE Publications, Inc.
- Leahy, D., & Montagna, C. (2015). *Economizing, Strategising, and the Vertical Boundaries of the Firm*. (Discussion Paper in Economics; Vol. 15, No. 5). University of Aberdeen Business School.
- Luco and Marshall (2020). *The Competitive Impact of Vertical Integration by Multiproduct Firms*.
- Macchiavello, Rocco & Miquel-Florensa, Josepa (2017). *Vertical Integration and Relational Contracts: Evidence from the Costa Rica Coffee Chain*. CAGE Online Working Paper Series 321, Competitive Advantage in the Global Economy (CAGE).
- Marchak, Volodymyr (2003). *Determinants of Vertical Integration in Oil Industry: Case of Transition Economies*.
- Murray-Prior, R., Israel, F., Bacus, R., Apará, D., Concepción, S., Montiflor, M., ... & Rola-Rubzen, M. F. (2011). Reducing poverty through participatory action learning and action research processes with small holder vegetable farmers in Mindanao. *Extension Farming Systems Journal*, 7(2).

- Pornel, Jonny & Saldaña, Giabelle. (2013). Four Common Misuses of the Likert Scale. *Philippine Journal of Social Sciences and Humanities*. 18.
- Pussep, Anton & Harnisch, Stefan & Buxmann, Peter (2012). "Value Creation and Firm Integration: First Empirical Evidence for the Software Industry," Publications of Darmstadt Technical University, Institute for Business Studies (BWL) 57629, Darmstadt Technical University, Department of Business Administration, Economics and Law, Institute for Business Studies (BWL). Understanding Maguindanaon Dance Music: A Phenomenology in the Context of Archival Review
- Riordan, Michael H. and Loertscher, Simon (2019). Make and Buy: Outsourcing, Vertical Integration, and Cost Reduction, *American Economic Journal: Microeconomics*
- Tyagi, Kalpana (2018). Implications of AT&T/Time Warner Decision for Vertical Integration and Media Business Models in the Age of Digitization. <https://ssrn.com/abstract=3198183> or <http://dx.doi.org/10.2139/ssrn.3198183>
- Ursino Giovanni (2015). «Supply Chain Control: A Theory of Vertical Integration,» *The BE Journal of Economic Analysis & Policy*, De Gruyter, vol. 15(4).
- Varchenko,O.(2021).Directions for Ensuring the Equivalence of Exchange in Agri-Food Chains in Ukraine. *Visegrad Journal on Bioeconomy and Sustainable Development*,10(1) 29-34. <https://doi.org/10.2478/vjbsd-2021-0007>
- Yamawake, T., Yamoto, S., Goi, H., and Lee, D. (2018). Determinants of Vertical Integration: Investment Efficiency, Product Differentiation, and Firm Size. *Theoretical Economics Letters*, 8, 1028-1043.
- Zhu, Susan H.; Ma, X.; Sauerwald, S. and Peng, M. W. (2019). Home Country Institutions Behind Cross-Border Acquisition Performance. *Journal of Management*, 45 (4). 10.1177/0149206317699520



# Understanding Maguindanao Dance Music: A Phenomenology in the Context of Archival Review

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## ABSTRACT

In a fast-changing world, preserving intangible culture and tradition seems to be a forsaken phenomenon. To fill this gap in the literature, this study focused on several aspects that would provide an understanding on Maguindanao dance music. This phenomenological qualitative study aimed to determine the electronically available Maguindanao dance music, determine similarities and differences in music elements, unveil experiences and coping mechanisms of the Maguindanao kulintang practitioners in employing dance music in their stage performances, and unbox the insight that participants can share to their peers. Through purposive sampling, 17 practitioners served as participants. The findings revealed themes such as; the kulintang practitioners subject themselves to holistic training to condition themselves spiritually, psychologically, and physically for master performance, the kulintang practitioners are challenged in their performance by personal and external issues, with their desire to perform well and please the audience and the organizers, the kulintang practitioners force themselves to perform amidst poor program, and the kulintang practitioners believe that by observing the right sound and instruments in playing, music can be used to preserve Maguindanao tradition. Lastly, this study also offered implication for practice and recommendations for future research that could serve to help the preservation of the Maguindanao culture and traditions in both performing arts and educational context.

**KEYWORDS:** Physical Education, Maguindanao dance music, kulintang practitioner culture preservation, phenomenology, qualitative research, Philippines

## INTRODUCTION

Music since time immemorial has been significantly valued by Filipinos through distinctive and rich cultural practices. One example is the continued patronage of the Kulintang music locally and internationally which is also used to accompany Maguindanao dances. Maguindanao's unique traditions warranted and shape their values which assume an essential part of preserving their integrity and cultural heritage (Benitez, 2005).

In line with the hope of preservation, the United Nations Educational, Scientific and Cultural Organization (UNESCO) (2003) stated that it is vital to guarantee the transmission of cultural heritage to the next generation which could manifest through the acquisition of essential knowledge and abilities as intangible cultural heritage of the people. This autochthonous cultural heritage is essential to maintain cultural

diversity as the world ceaselessly welcomes modernization. Furthermore, the absence of great concern on impalpable cultural heritage could cease important elements to exist and could vanish without help. Moreover, former President Gloria Macapagal-Arroyo signed the Republic

Act 10066 on March 26, 2010, also known as “An Act Providing for the Protection and Conservation of the National Cultural Heritage, Strengthening the Nation Commission for Culture and the Arts (NCCA), and the Affiliated Cultural Agencies, and other Purposes”. One of the major objectives of this Act is to protect, histories, and the ethnicity of local communities (“Republic Act 10066,” 2010).

Abdullah (2013) stated in his study that some Maguindanaon cultures and traditions are slowly fading particularly the *Kulintang* ensemble music. One factor is the lack of potential successor to transmit the tradition and the other is the rapid influence of technologies that catch the attention of young Maguindanaon musicians. *Kulintang* ensemble music plays an important role in Maguindanaon dance performances during different social gatherings and plays a vital role in the appreciation, reflection, and preservation of Maguindanaon rich cultures and traditions. Moreover, he also stated that many young Maguindanaon are unaware of the importance of the *Kulintang* ensemble in showing and preserving their cultural heritage and practices. Consequently, restraining the significance of the traditional importance which could be helpful in strengthening the appreciation of the craft for culture preservation.

Additionally, Kalanduyan (1996) emphasized that sufficient knowledge about the Maguindanao culture particularly on *Kulintang* ensemble music could help the general public develop a sense of intercultural appreciation and mutual respect for their tribe. Furthermore, he also stated that although the Maguindanaon people are one of the largest cultural tribes in the country, less attention is given in documenting their music unlike other tribal Muslim group like Tausug and Maranao whose music and literature are well documented and concluded that there are still many Maguindanaon music facets needed further studies. Moreover, Jimenez (2008) strongly believes that this cultural heritage must remain relevant to their culture and must be regularly practiced appropriately to preserve its integrity and genuine function. In a musicological sense, the writing and analysis of their music could be beneficial to understand its musical language and could provide data about its music elements. Music theory as posited by Onishi (2010) can potentially provide new insights in understanding *kulintang* music despite the previous studies and ethnomusicological perspective.

However, based on the studies done regarding *kulintang* music, only its instrumental aspect was the focused, *kulintang* as an accompaniment for different Maguindanaon dances was never given an emphasis. Furthermore, the importance of music to dancing has always been a key factor not only in the preservation of culture but also in educating the young generation to be aware of cultural values. This study will address the issue of the need to further study Maguindanaon dance music considering the experiences and insights of the Maguindanaon *kulintang* practitioners as they employ music to their dances.

This phenomenological inquiry is important as it could provide knowledge and understanding for Physical Education teachers in teaching the Philippine dances particularly of the Maguindanaon folk and ethnic dances considering appropriate musical accompaniment. This study could also foster cultural awareness among people especially of the young as this study endeavors to reassure students to appreciate and respect other cultural traditions and strengthen the seemingly marginalized ethnolinguistic group of the country.

## **Purpose of the Study**

The purpose of this phenomenological study aimed to investigate the experiences of Maguindanaon choreographers and musicians to gain an understanding of the Maguindanaon dance music, its music elements, instruments, and other social and spiritual functions that made the kulintang ensemble unique and vital in the preservation of Maguindanaon culture and tradition. The study also sought in exploring the experiences and views of kulintang practitioners and choreographers in Cotabato City largely influence the nature and authenticity of the Maguindanaon dance and music.

## **Theoretical Underpinnings**

This study being qualitative phenomenological in nature is to understand the experiences of the participants to arrive at a description of the nature of the phenomenon (Creswell 2013). This study involves a worldview that reinforces the methods which could effectively answer the research questions. This involves a qualitative method to evaluate different important aspects of the research problem. The researcher conceptualized this study using the pragmatic philosophical worldview. Pragmatism is derived from the work of Peirce, James, Mead, and Dewey as cited by Cherrybolmes (1992). Other writers included Murphy (1990), Patton (1990), and Rorty (1990). Nevertheless, for most writers, pragmatism as a worldview emerges out of actions, situations, and results as opposed to prior conditions. Rather than concentrating on methods, researchers emphasize the research problem and utilize all available approaches to understand the problem (Rossman & Wilson, 1985). This study was anchored to the musical analysis proposed by Cook (1994). He defined musical analysis as the practical process of examining pieces of music to discover, or decide, how they work. The analytical methods ask whether it is possible to break down music into sections to be able to understand it. It likewise investigates the musical components and interfaces their relationship to discover their significance to each other. Specifically, they seek to find out how far these components develop their effect from the context from which they are involved. Analysis alludes exclusively to melodic parameters with no goal to demand the social or political setting where works are created. The essentialness of the work is explained similar to the association between elements within the music. In this study, basis music elements were examined such as melody, rhythm, dynamics, and form to discover how they are utilized and what the difference in Maguindanoan dance music is. As there are different renditions of the accompaniment used in Maguindanaon dances, it is important to consider the similarities and differences of rhythmic mode in their music.

## **METHODS**

### **Research Design**

As the stated goal of this research was to understand Maguindanaon Dance Music, phenomenology was ideal as it emphasizes in understanding the essence of the people who experienced it. Furthermore, qualitative methodological approaches are based on recognition of subjective human encounters as a description of their experiences (Patton, 2002). Phenomenology is an investigation of experiences and the essence of

human experience. It aims to describe the experiences as experienced from first person perspective (Neubauer et al., 2019). Phenomenology as a technique to investigate is related to human science and is valuable for conducting studies (Sloan et al., 2014). Moreover, the goal of phenomenology is to gain a deeper understanding of the nature of meaning of our daily experiences and ask what is that kind of experience be like (Van Manen, 2016). The phenomenological research was utilized by conducting an in-depth interview and focus-group discussion with the use of an interview guide questionnaire to investigate the lived experiences of the choreographers and musicians in employing music to their performances. The purpose of this method is to search for meanings of the experiences of kulintang practitioners in employing their music during their performances.

## Research Site and Participants

The participants of this study were the 17 Maguindanaon musicians who choreographs and teachers who handle school based or community-based dance groups and play accompaniment for Maguindanaon dances. More specifically, they are residents in Cotabato City who plays *Kulintang ensemble* instruments such as *kulintang*, *agung*, *gandingan*, *dabakan*, and *babandil* whoa are particularly playing to accompany Maguindnaon dances. The said number conforms to the recommendation of Creswell (2013) that the participants for the interview in the phenomenological research is from 5 to 25 individuals who have all experienced the phenomenon. Though gender and age are not the bases for the inclusion criteria, but 16 were men and 1 woman whose age range from are 18 – 50. Since this study used purposive sampling, one of the inclusion criteria in the selection of the participants considered is that they were Maguindanaon musicians and choreographers who are actively performing Maguindanaon dance and music at the time of data collection. I have purposely limited the specific and individual description of the participants in order to ensure confidentiality and privacy. Pseudonyms were also used in this study as it could jeopardize the confidentiality if their real names were revealed. As teachers, musicians and choreographers are the direct trainers of Maguindnaon dances and responsible in performing Maguindnaon dances. There were 7 interviewees for an in-depth interview and 10 participants for FGD in this study.

## Data Analysis

In order to analyze the data in this study, a thematic analysis is used to systematically identify, organize and provide insights from themes across the set of data. Braun et al., (2012) considered accessibility and flexibility to be the two main reasons in using thematic analysis for qualitative study. Additionally, Braun et al., (2012) suggested six approaches to thematic analysis such as; familiarizing yourself with the data, generating initial codes, searching for themes, reviewing potential themes, defining and naming themes and lastly, producing the report. (Braun et al., 2012). In this study, the transcription of the information gathered through interview was analyzed to search for themes that capture something significant about the data in relation to research question and represent some level of patterned response within the set of data.

## Trustworthiness

To demonstrate the reliability of this qualitative content analysis, using concepts like credibility, confirmability, transferability, and dependability—adopted from Lincoln and Guba's (1985) model, which provides four criteria—was used. The goal of credibility is to bolster the claim that the investigation's results are important enough to pay attention to.

## RESULTS

### Electronically Available Maguindnaon Dance Music

Table 1 displays the 5 types of Maguindanaon dances that can be found available electronically. The Maguindanaon dance music being used in this study are carefully selected through an archive of videos which are readily available to the public. These videos were documented and uploaded via Youtube where online surfers can easily access video materials of all sorts such as dance performances all over the world. The five dances are the *Sagayan*, *Silong sa Ganding*, *Kappa Malong Malong*, *Dulang*, and *Kadsayap*. There are 21 videos of *Sagayan Dance*, 17 *Silong sa Ganding*, 9 *Kappa Malong Malong dances*, 7 *Dulang dance*, and 7 *Kadsayap dances* that are included in this study.

**Table 1**

*Electronically Available Maguindanaon Dance Music*

Dances	No. of Videos Included
Sagayan	21
Silong sa Ganding	17
Kappa Malong Malong	9
Dulang	7
Kadsayap	7

### Similarities in terms of Musical Elements of Maguindanaon Dances

Each Maguindananon dance is a cultural reflection of emotion, practices, rituals, and the like. These are of course embedded to the type of musical elements that are applied to provide certain musical appeal and add flavor to the type of dance performed by dancers. Since all the dances belong to a certain ethnolinguistic tribe, there are similarities that can be observed. Thus, musical elements such as melody, rhythm, dynamics, forms, and instruments used may be observed to be similar as well. These similarities may be present or not to the identified dances of the Maguindanaon.

**Table 2.1**  
*Similarities in terms of Music Elements and Instruments Used*  
*in Five Maguindanaon Dances*

Music Elements	Dances
<b>Melody</b>	
Kulintang improvisation and variations are based on rhythmic mode. Gandingan acts as secondary melody with repeated pattern	Dulang Kappa Malong Kadsayap
<b>Rhythm</b>	
Rhythm tempo is moderate	Kappa Malong Dulang
<b>Dynamics</b>	
Having variations of soft and loud	Kappa Malong Dulang Silong sa Ganding
<b>Form</b>	
Strophic form (verse-repeating form)	Silong sa Ganding Kappa Malong Dulang Kadsayap
<b>Instruments Used</b>	
Kulintang ensemble (Kulintang, agung, gandingan and dabakan)	Silong sa Ganding Kappa Malong Dulang Kadsayap

As reflected in table 2.1, Dulang, Kappa Malong, and Kadsayap have similar concepts in their melody. Meanwhile, Kappa Malong and Dulang also have similarity in terms of tempo speed under rhythm element. With respect to dynamics, Kappa Malong, Dulang, and Silong sa Ganding employ dynamics having variations of soft and loud in their music. It is worthy to note that four dances such as Silong sa Ganding, Kappa Malong, Dulang, and Kadsayap have similar forms having verse-repeated melodies. In terms of the use of kulintang ensemble, the dances Silong.

### **Differences in terms of Music Elements of Maguindanaon Dances**

In contrast to the musical elements' similarities, there are also differences that makes each Maguindanaon dance musically unique as well. As shown in table 2.2 are the differences in terms of musical elements of Maguindanaon dances. Sayagan dance is the only dance among others included in the study to have monotonous melody and two rhythmic modes such as: *Balabad* and *Sinulog* with themes and variations from and only the sayagan dance use tambol and agung a tambol as main instruments. Silong sa ganding repeated melodic line which is played by the gandingan instrument with different rhythmic mode among others called "Silong or Duyog". Kappa malong dance on the other hand has different rhythmic mode called "tagunggo or Tagunggo Siyad". Dulang is played using Sinulog a matua or binalig as rhythmic mode. Lastly, Kadsayap dance is played using binalig as rhythmic mode.

**Table 2.2**  
*Differences in terms of Music Elements and Instruments Used in Five Maguindanao Dances*

Dance	Melody	Rhythm	Dynamics	Form	Instruments
Sagayan Dance	Monotonous	Combination of fast and slow (Balabab & Sinulog)	Always loud	Theme and variation	Tambol and small gong
Silong sa Ganding Dance	Repeated Melodic Phrase played by Gandingan	Combination of slow and fast (Silong or Duyog)	Variations of soft and loud	Strophic form	Kulintang ensemble Instruments
Kappa Malong Dance	Variations based on Rhythmic mode	Moderate (Tagunggo or Siyad)	Variations of soft and loud	Strophic form	Kulintang ensemble Instruments
Dulang Dance	Variations based on Rhythmic mode	Moderate (Sinulog a Matua or Binalig)	Variations of soft and loud	Strophic form	Kulintang ensemble Instruments
Kadsayap Dance	Variations based on Rhythmic mode	Fast (Binalig)	Loud	Strophic form	Kulintang ensemble Instruments

### Profile of the Participants

Table 3 illustrates the demographic profile of the 17 Maguindanao Kulintang Musicians who were the participants in this qualitative study. The demographic profile of the participants includes sex, age, and number of years as kulintang musicians. Also shown in table 3.1 is the code of the participants where 7 participants participated in the in-depth interview, while 10 participants participated in the focus group discussion. Based on the illustration, out of the 17 participants both in the IDI and FGD, only one is a female and the rest are male. With respect to age, the youngest participant is 22 years old and the oldest is 50 years old. In terms of the number of years experiences in playing Kulintang, the least is 8 years and the most is 43 years.

**Table 3**  
*Profile of the Participants*

Participants' Code	Pseudonym	Sex	Age	No. of yrs. as a Kulintang Musician
IDIP1	Fai	Male	43	30
IDIP2	Hamid	Male	22	8
IDIP3	Abas	Male	29	21
IDIP4	Tong	Male	48	43
IDIP5	Satar	Male	50	40
IDIP6	Madz	Male	27	15
IDIP7	Musa	Male	40	31
FGDP1	Abdul	Male	39	21

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FGDP2	Amad	Male	48	30
FGDP3	Haris	Male	22	15
FGDP4	Sol	Male	27	19
FGDP5	Hata	Male	50	40
FGDP6	Wads	Male	45	30
FGDP7	Moner	Male	43	30
FGDP8	Bai	Male	45	29
FGDP9	Moks	Male	45	30
FGDP10	Sam	Female	45	35

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### Lived Experiences of the Maguindanaon Kulintang Practitioners

Table 4.1 presents the issues investigated, core ideas, codes/categories, and the essential themes on the lived experiences of the Maguindanaon Kulintang practitioners. These lived experiences evolved on the following themes: holistic training , feel good when performing, feel good when imparting unique Maguindanaoan culture, gripped in passion, and challenged by personal and external issues.

**Holistic Training.** Most of the participants shared their knowledge and experiences by recalling traditional rituals as basis for the dances of the Maguindanaons. Abdul shared his experiences about traditional rituals as basis for dances and their accompaniment particularly in performing the *Sagayan* dance;

There are two types of *Sagayan*, there is for healing rituals and the other one is for entertainment purposes. Based on my experience, the two types are performed because, in ritual, there are spirits that drives the shaman to perform the *sagayan* more energetic.

Amad also added saying:

Based on my observation, the music used in healing differs from that used in entertainment. In the healing ceremony, the emotions involved are mixed with pain because someone is being treated so even the bystanders are also serious and do not shout to cheer. The music is non-stop because when the shaman says not to stop, the musicians should never stop playing because when the music is stopped the healing process will be interrupted.

**Table 4.1**  
*The experiences of Kulintang practitioners in employing dances in their stage performances.*

Essential Themes	Core Ideas
holistic training	Recalling traditional rituals as basis for the dances - Meditating on family and cultural traditions Remembering personal experiences about the rituals for empathy in performance Ensuring instruments are in perfect tune especially the kulintang Making sure that the music is not in conflict with the dance moves Rehearsing intensely so the music becomes compatible with the dances
feel good when performing	Good sound in the instruments being used - Instruments are conditioned and in perfect tune When playing the music flawlessly and it synchronizes with the dancers' movements Having harmony in the group as if performing as one Engaging in own passion and expressing own musicality
feel good when imparting unique Maguindanaoan culture	Audience are enjoying and appreciating the performance Applause, esp. from foreigners Standing ovation Audience responding well to Maguindanaoan music Realizing that Maguindanaoan culture is still alive today
Gripped in passion	Feeling passionate about playing Having mixed emotions Enjoying the moment of playing Kulintang despite how this generation is obsessed with other things Feeling happy, fortunate & thankful because own ancestors' music that they inherited is still being heard Feeling good seeing that people draw near their traditional performance and enjoy it

**Feel Good when Performing.** The Kulintang Practitioners feel good when they know they are performing well individually and as a group using well-tuned instruments. Fai shared his thoughts when asked about his feelings while performing:

I feel good when the instruments we use have good sound. When it is in perfect tune and sounds good in general. One of the things that makes me feel better is when the audience enjoys and appreciate our performance especially when we are applauded.

**Feel good when imparting unique Maguindanaoan culture.** The Kulintang practitioners feel good knowing they impart the unique maguindanaoan culture and the audience receive it well.

Hamid shared his experiences while performing on stage:

Most of the time, we performed dance and music with standing ovation especially on the international stage as they really show high appreciation on Maguindanaoan music.

**Gripped in passion.** gripped in passion for their art, pride in their ancestral music, and joy with the audience' interest during the actual performance, the Kulintang practitioners are enabled to perform very well as a team.

Fai answered when asked about how his feelings and thoughts affects his performance:

We are passionate about playing and often have mixed emotions. First and foremost in playing music, our generation is very fortunate because the music we have inherited from our ancestors is still heard today. I'm happy that today's generation still uses our ancestors' music and heard by many

### **Practitioners Coping with the Challenges of the Experiences**

Table 4.2 presents the issues investigated, core ideas, codes/categories, and the essential themes on how the kulintang practitioners cope with the challenges of the experiences. These lived experiences evolved on the following themes: forcing oneself to perform amidst poor program logistics, driven by passion & commitment, dedication in sharing knowledge and techniques, and driven by high expectations.

**Forcing oneself to perform amidst poor program logistics.** With their desire to perform well and please the audience and the organizers, the Kulintang practitioners force themselves to perform amidst poor program logistics.

Abas mentioned one of the stressors that he faces while performing on stage:

When you see that the dancers and the music are not in sync. So you have to chase and adjust to perform well.

**Driven by passion & commitment.** Driven by Passion and Commitment, the Kulintang Practitioners Adopt Strategies to Overcome Difficulties, Equip Members, and Encourage Team Growth, for the Improvement of their Performances.

Fai expressed how passionate he is as a Kulintang musician and said:

I often show them that many foreigners are interested in Maguindanaon music so that they can encourage others to pursue music because other countries have a high regard for our music.

**Dedication in sharing knowledge and techniques.** The Kulintang Practitioners dedicate themselves in sharing their knowledge and techniques to team members for successful performances.

Hamid said:

Before the show starts ,I tell them to feel it while playing to figure out the volume of instrumenting music. I interview my colleagues first before the show begins.

**Driven by high expectations.** Driven by high expectations, the Kulintang practitioners ensure that all members are well conditioned and set to perform with eyes set on a successful performance.

Satar said:

I don't take my problem to the stage. When I have a problem at home I put my problems aside and only fix them after the performance. I first

find out if other members have problems and I tell them not to think about it first and then fix it after the performance.

**Table 4.2**  
*How Practitioners Cope with the Challenges of the Experiences*

Essential Themes	Core Ideas
forcing oneself to perform amidst poor program logistics	Seeing that the dancers and the musicians are not in sync - Chasing dancers' movements with suitable sound of improvisations in music Thinking that audience have high expectations Wanting to see that audience are satisfied or enjoying the performance Pressure from organizers for non-stop music playing esp. with huge number of visitors - Having no intervals/relievers for musicians, unlike the dancers
Driven by passion & commitment	Sharing Maguindanao music not only here in our country but also abroad Knowing how much their music is being appreciated in other countries Listening to advice to religiously practice more & improve performances - Learning from mistakes to make next performance better Having orientations prior to performances Highlighting everyone's responsibilities as team members
dedication in sharing knowledge and techniques	The practitioners make their team members listen to the right Kulintang music for them to learn and remember it Before the show, the Kulintang practitioners advise the colleagues to feel their performance to figure amount of music volume to play in the instruments Having regular mastery trainings for members to have command of the music, esp. for on the spot invitations Encouraging new members by making them observe first, learn the basics at heart, then teaching them higher levels of complexity in the music The practitioners embrace becoming a role model to other members in terms of Kulintang playing
Driven by high expectations	Showing members that in foreign countries, traditional music like Maguindanaoan music is highly regarded, to encourage them to pursue their music Finding out if other members have problems and encouraging them to set them aside and deal with them after the performance Orienting members to give best and not shortchange audience and host Imposing a standard for team members' level of music and playing skills, esp. in timing, rhythm and melody Reminding instrument players that good movements of dancers mainly depend on them playing good music consistently

### Insights of the Participants to their Peers

Another objective of this study is unboxing the insights of the participants to their peers. Insights are essentially meaningful area of phenomenological nature research to understand personal perspectives worth sharing to the readers. Table 4.3 shows the themes.

**Table 4.3**  
*Insights of the Participants to Their Peers*

Essential Themes	Core Ideas
upholding true Maguindanaoan tradition	That on simple occasions they play or perform, much bigger break will come
	Having opportunities to travel and perform, esp. for foreign traditional music enthusiasts
	Showing how must Kulintang instruments be played correctly Taking and showing pride playing own traditional music
inspiring both the young and old	Maguindanaon music is unique and very important to be preserved
	Playing kulintang music must be done seriously for a player to be able to improve
	Cultures must be promoted and preserved so that the next generation can see what culture they have
	Giving opportunities for children to play Dedicate recognitions received to all group members and people advocating cultural preservation
preserving the Maguindanaoan tradition	Playing the music based on tradition, not feelings or another version
	Sticking to the traditional way of playing kulintang
	The instruments must be played correctly without being distorted - Not adding another instrument that is not included in the traditional ensemble
	playing it well to attract others esp. the young to uniqueness of Maguindanaoan music

**Upholding true Maguindanaon tradition.** Every opportunity to perform in order to uphold true Maguindanaon tradition ablaze the Kulintang practitioners’ motivation to play.

Tong shared how his simple efforts preserves their culture and stated:

As I often use kulintang music at weddings, I show the Maguindanaon that on simple occasions everything begins before reaching a much bigger opportunities

**Inspiring both the young and old.** In their experience as Kulintang practitioners, they have gathered wisdom that can inspire both the young and old.

Abas expressed his advocacy to promote and preserve kulintang music by saying:

I am proud of them for the recognitions I received for playing such an invitation elsewhere, media exposures because of people who advocate cultural preservation. So I tell young people that they should be proud of their own culture because it is so unique in Maguindanaon culture

**Preserving the Maguindanaon tradition.** The Kulintang practitioners believe that by observing the right sound and instruments in playing, music can be used to preserve the Maguindanaon tradition.

Fai shared how he influences others and preserve their culture and said:

One of the reasons is to show how our instruments play correctly because if we do not do so the interpretation may change especially

since some foreigners are obsessed with playing music. It should, if any change, should not deviate from the tradition and should not be distorted.

## DISCUSSION

The result of the findings shows that there were five Maguindanao dances found that are electronically available on [www.youtube.com](http://www.youtube.com) website. The website served as the archive used to find videos that contain Maguindanao dances. The most prominent Maguindanao dances were *Sagayan* and *Silong sa Ganding* while the least prominent dances were *Kappa Malong*, *Dulang* and *Kadsayap*. The Maguindanao dances found were, 21 *Sagayan* videos, 17 *Silong sa Ganding* videos, 9 *Kappa Malong* videos, 7 *Dulang* videos, and 7 *Kadsayap* videos. The dances found in the archive include those that are performed in different occasions such as, weddings, festivals, and other celebrations that involve the performance of the dances

The result of the findings convey that the five Maguindanao dances have similarities in terms of their music elements and instruments used. In terms of their melodic element, *dulang*, *kappa malong* and *kadsayap* dances were found to have the same aspect where the *kulintang* plays improvisation and variations that are usually based on rhythmic mode and the *gandingan* acts as a secondary melody with repeated melodic patterns. Moreover, as stated by Jimenez (2008), this characteristics shows that the *kulintang* is capable of improvisation due to its capacity to elaborate melodies with its scale set (Jimenez, 2008). *Kappa malong* and *dulang* dances have moderate speed in terms of tempo in music. Further, the dynamics for *kappa malong*, *dulang* and *silong sa ganding* dances also have similarities having variations of soft and loud in music. *Silong sa ganding*, *kappa malong*, *dulang* and *kadsayap* have similarities in terms of form having strophic like or has verse-repeating form and also have similarities in terms of instruments used in the entire *kulintang* ensemble. Moreover, as Jimenez (2008) pointed out, that this repetitive characteristics is due to the reasons that gongs and drums can only produce the same tone which establish the rhythm and tension which do not have the capacity to play solos (Jimenez, 2008).

The findings show that the five Maguindanao dances included in this study have found to have differences in terms of their music elements and instruments used as accompaniment. Kalanduyan (1996) pointed out that the compositions of the *kulintang* ensemble varies from different traditions. (Kalanduyan, 1996). Among all the dances, only the *Sagayan* dance is characterized to have monotonous melody which only uses *tambol* and small gong as instruments. Furthermore, Kalanduyan (1996), stated that the agong produces the main rhythm along with the *dabakan* which carries the task to play and describe the rhythmic mode of the music. *Sagayan* is also the only dance that has two rhythmic mode namely: *balabab* and *sinulog*. The dance is also characterized to have a combination of fast and slow tempo due to having two different rhythmic modes and theme and variations. The unique melody of the *Gandingan* as main instrument played in *Silong sa Ganding* dance which makes it different from other dances where the *kulintang* instrument plays the main melody. The dance also has a combination of slow and fast tempo with *silong* or *duyog* rhythmic mode. *Kappa Malong*, *Dulang*, and *Kadsayap* only differ in terms of rhythmic mode where *tagunggo* or *siyad* for *Kappa Malong*, *sinulog a matua* or *binalig* for *Dulang*, and *binalig* for *Kadsayap* dance.

**Lack of Preparation to the Abrupt Shift of Education.** This theme is the participants' opinion on their difficulties in conducting classes during the pandemic. This finding corroborates to that of Oyetudon's (2020), that the sudden change of pedagogy in education driven by the COVID-19 pandemic has exposed some inequalities and challenges as well as benefits as it came abruptly with little or no preparation plan. Within the framework of the suspension of face-to-face classes, the need to maintain educational continuity has presented challenges to which IPed Program implementers were forced to respond despite the lack of preparation to the abrupt shift of education. Similarly, the finding is in accordance to the report of UNESCO (2020), IPed schools have different options and solutions, including adjusting the school calendar and how the curriculum implemented, adapted, and adjusted in various ways to fit to their own context.

The lived experiences of the Maguindanaon Kulintang Practitioners as they employ the dances in their stage performances serve findings in probing subjects such as their preparations and routines prior to performance, reasons for feelings good performing on stage, and their thoughts and feelings during performance and how they affect their performance.

The experiences of the kulintang practitioners in employing their dance in stage performance relates to their preparations prior to performance with some essential codes and categories which includes, spiritual reflections on traditions related to dance, organizing and setting the production of the whole performance, and consistent rehearsals for mastery. The essential theme generated shows the kulintang practitioners subject themselves to holistic training to condition themselves spiritually, psychologically, and physically for a master performance. Abdullah (2015) stated that playing the kulintang ensemble plays an important role in the appreciation, reflection, and preservation of the cultural heritage of the Maguindanaons. Comparably, this supports the qualitative findings of the study that the Maguindanaon musicians employ kulintang music to accompany their dances in many different occasions. They believed that the dance would be more beautiful if accompanied by kulintang music when performed.

The lived experiences of the Maguindanaon Kulintang practitioners also revealed challenges and stressors during their performance, strategies employed in managing the challenges and stressors, influences of own musical style to other group members, and their ways of dealing with other members' skills and abilities to have a successful performance. The challenges as conveyed by the kulintang practitioners revealed their self-imposed burden to perform well, pressured to please the audience and the demands from organizers having poor program logistics. The musicians force themselves to perform despite poor program logistics with their desire to perform well and to please the audience and organizers. Further, part of the challenges that the musicians encountered was the limited compensation whenever invited to perform on different occasions. The kulintang practitioners are not paid enough to wholly capture their interest in seriously immersing themselves in kulintang background knowledge. Aside from that, a gradual loss of interest in playing Maguindanaon instruments was also considered as a challenge by the musicians. Similarly, Abdullah (2015) stated that many young Maguindanaons are not aware of the importance of kulintang ensemble in the preservation of their culture and tradition.

The insights of the Kulintang practitioners revealed subjects such as motivations to continue playing Maguindanaon music, inspiration and advice for other practitioners to continue playing, and how they use music to preserve Maguindanaon culture.

Their insights revealed that in every opportunity to perform in order to uphold true Maguindanaon tradition, it motivates them to play. One of the insights that the participants have shared to their peers is to have an opportunity to perform, that on simple occasions, a chance for bigger breaks, showcasing of talent, and an opportunity to travel and perform locally and internationally could be possible. Moreover, this supports the statement of Maceda (1961), that Maguindanaon people have high regards to kulintang music utilizing it in their various cultural and traditional activities (Maceda, 2961).

### **Implications for Educational Practice**

This study is significant in education particularly in the field of Physical Education as folk and indigenous dance and music are being taught in schools. The findings of this study revealed knowledge of the Maguindanaon kulintang practitioners and choreographer regarding dance music particularly of the traditional basis for performance and some reasons for spiritual and cultural aspects. In response to the advocacy of the Maguindanaon musicians to preserve their own tradition by teaching young generations the proper and traditional way of performing their music and dance, educators should also make an effort to help them proliferate the correct ways of performing their dance and music. Through this, the future generations may have the chance.

### **REFERENCES**

- Abdullah, S. N. (2015). *Kulintang Ensemble of Maguindanaon: Reflection and Preservation of Their Cultures and Traditions*. An Unpublished Master's Thesis, Sultan Kudarat State University, ACCESS, Tacurong City
- Benitez, K. (2005). *The maguindanaon kulintang: Musical innovation, Transformation and the concept of binalig* (Order No. 3186573). Available from ProQuest Dissertations & Theses Global. (305419688). *Travails of Out-of-Field Teachers Handling English Subjects: A Phenomenology*
- Cadar, U., & Garfias, R. (1974). Some Principles of Formal Variation in the Kolintang Music of the Maranao. *Ethnomusicology*, 18(1), 43-55. doi:10.2307/850059
- Carroll, N., & Moore, M. (2008). Feeling movement: Music and Dance. *Revue Internationale De Philosophie*, 62(246 (4)), 413-435. Retrieved from <http://www.jstor.org/stable/23961196>
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. sage.
- Creswell, J. W. (2007). *Qualitative inquiry and research design* (2» ed.).
- Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed methods approaches*.

- Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.
- Cruz, G. (2006). "Galleries, Repertoire, Mindanao". *Likha Pilipino Folk Ensemble*. Retrieved 11 December 2018.
- Dura, M. T. (2006). The phenomenology of the music-listening experience. *Arts Education Policy Review*, 107(3), 25-32. Retrieved from <https://search.proquest.com/docview/211031479?accountid=50173>
- Gaillet, L. L. (2012). (Per) forming archival research methodologies. *College Composition and Communication*, 64(1), 35-58. Retrieved from <https://search.proquest.com/docview/1081830956?accountid=5013>
- Garfias, R. (1996). *Kulintang/kolintang Music-Introduction*.
- Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Ectj*, 29(2), 75.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2011). *Applied thematic analysis*. Sage Publications.
- Posner, K. (1996). A Preliminary Analysis of Style in Maguindanoan Kulintang Music. *Asian Music*, 27(2), 19-32. doi:10.2307/834486
- Rossmann, G. B., & Wilson, B. L. (1985). Numbers and words: Combining quantitative and qualitative methods in a single large-scale evaluation study. *Evaluation review*, 9(5), 627-643.
- Scholz, S. (1996). The Supportive Instruments of the Magindanaon Kulintang Ensemble. *Asian Music*, 27(2), 33-52. doi:10.2307/834487
- Solis, G. (2012). Thoughts on an Interdiscipline: Music Theory, Analysis, and Social Theory in Ethnomusicology. *Ethnomusicology*, 56(3), 530-554. doi:10.5406/ethnomusicology.56.3.0530
- Talusan, M. I. (2005). Cultural localization and transnational flows: Music in the Magindanaon communities of the Philippines.
- Terada, Y. (1996). Variational and Improvisational Techniques of Gandingan Playing in the Magindanaon Kulintang Ensemble. *Asian Music*, 27(2), 53-79. doi:10.2307/834488
- Terada, Y. (2012). Kulintang Music and Filipino American Identity. *Music and minorities in ethnomusicology: Challenges and discourses from three continents*, 81-93.

## **Travails of Out-of-Field Teachers Handling English Subjects: A Phenomenology**

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### **ABSTRACT**

The purpose of the study is to explore the experiences of primary teachers handling the English subject despite they are not specializing it. The study will able to give insights of the real scenario in the Department of Education that there were cases of teaching loads mismatch. The participants of the study were 17 elementary teachers from the division of Davao del Sur. In-depth interview was the research technique being utilized to collect the data. The results showed that teachers' capability to teach the subject has been the problem why there is a mismatch of teaching of teaching load and teachers were only adapting to the situation. Teachers also gave insights that in order to address the problem of out-of-field teaching there should be programs that will deepen and widen the knowledge of teachers. Utilization of student-centered instruction will also help the teachers and there should be consistent checking and expectations for evaluation of academic practice. The study also revealed possible suggestions from the insights of teachers in the phenomena that there should be knowledge enhancement and flexibility, open management support, self-improvement and commitment to teaching must be in this situation in order to deliver quality education. The result of the study will greatly help the Department of Education to take a look at this hitch in the instruction and will possibly be served as basis for policy development or administrative adjustments.

**KEYWORDS:** Education, English, out-of-field, qualitative, phenomenology, Philippines

### **INTRODUCTION**

In upholding academic competence teacher's role is very vital for the success of the teaching and learning process. The teachers' qualifications and capabilities will be a great factor in learning the competencies and skills intended for students but then the sad reality in the educational systems is that there are teachers who are not qualified and have no training to teach the subjects assigned to them. However, teaching a subject without formal training in the subject they taught has been a prohibited practice for a long time. Despite reality that numerous educators have encountered, just few have talked about its pervasiveness. Thus, little consideration has been given to the impact of out-of-field instruction on teacher well-being and retention and on student learning attainment and participation (Hobbs, 2015; McConney et al., 2010).

In the United States, English, for instance, one-fifth of all public school students enrolled in English classes in grades 7-12, or about 4,310,000 of 20,700,000

students, were taught by teachers who did not have at least a minor in English, Literature, Communications, Speech, Journalism, English Education or Reading Education (Ingersoll et al., 2004). This impacts the learning of the students (United States Education Department, 2010).

In the study of Mukeredzi (2013) he found out that the engagement to service of teachers with limited professional education has often been linked to lower quality education and produce poorly educated students. This is in consonance in the study of Kruijer in Tokyo, (2010) which he found that students taught by professionally unqualified teachers performed worse than those taught by qualified teachers. It is in this circumstance that this study is taken into consideration to investigate the experiences, difficulties of professional nonlanguage teachers in the field to address issues and concerns pertaining to this gap.

Further, it is addressed to the greater level of sophisticated knowledge of language teaching required of English teachers. Lastly, he reiterated that becoming an English language teacher means becoming part of a worldwide community of professionals with shared goals, values, discourse, and practices, but one with a self-critical view of its own practices and a commitment to a transformative approach to its own role.

The Department of Education released a D.O 13, 1994 stating the guidelines for matching specialization in teaching preparation with teaching assignments for public school teachers. This is to minimize unnecessary academic mismatch between excessive specialization in teaching preparation and teaching assignments of public elementary and high school teachers, and the resultant lack of fit between teacher qualifications and subject assignments. However, Favilla (1994) issued a memorandum that due to the teachers' insufficient to fill in the gap, especially in elementary and secondary education, professional teachers are assigned to teach even in their non-specialized field in which do not exempt those in the language area. Professional non-language teachers are utilized to do the task of teaching English language and the concern for specialization and proficiency is taken a bit lenient.

In the local setting, school boards also face increasing difficulty finding and keeping certified teachers, especially in English, Math, Science, and Special Education. However, there seems to be lack of awareness on the issue. One of the reasons for the lack of awareness of this problem has been the absence of accurate statistics on out-of-field teaching has kept this problem largely unrecognized.

Upon the scanned literatures that have been read and gathered upon the formulation of the study, I have found out that there is a need to explore the existing phenomena of out of field teaching in the primary education. The mismatch of teaching loads to primary teachers who are not English majors but teaching the subject is a problem that is existing in the recent times. Its purpose is to address the need to understand their experience, to ask how fundamental their lived experiences are and to focus on what is happening. Despite the fact that teachers in the primary education are considered to be generalist it is a must for them to master a specialized subject for them to grow professionally and capacitate them to deliver the curriculum effectively. That is why this study is great help for the possible remediations that will be considered. The study will also address the problem of the mismatch of teaching loads of teachers specifically those who handle English subjects who are not English majors. This will be a great basis for developing action to the problem of teachers teaching beyond their field of expertise. This study will be an informative tool to present the real scenario in the primary education and administrators who will be informed through the relevant

findings of the study for policy generation. Realizing this intent makes this study a document with social relevance.

## **Purpose of the Study**

The purpose of this qualitative phenomenological study is to explore the lived experiences of non-English major elementary teachers who teach English subjects in their respective schools. Further, it intends to better understand how these out-of-field teachers cope with the challenges of teaching English subjects and discover their mechanisms in facing such challenges. In this study, the researcher focused on their stories about remarkable episodes of their teaching career especially when they were given the task to teach subjects outside their expertise.

## **Theoretical Underpinnings**

The study of out-of-field teachers by Ingersoll (2001) provides the theoretical framework for this paper. He argued that elementary and secondary teachers should have both formal education and training in the subject that they teach. The teacher must have the credentials to teach the subject when he/she is hired by the school. By contrary, significant number of teachers is assigned to teach the subjects that do not match their training or education which may have negative effects. Another study which can be integrated in the out-of-field teaching is the argument of Shimon and Brawdy (2001) that underlines the considerable effect of poor teacher placement on the curriculum implementation. When teachers are assigned to courses outside their area of study, the curriculum is weakened by fragmented content knowledge. Departments should make every effort to help faculty develop the content knowledge necessary to suitably teach out-of-field assignments. This study is also anchored on the pedagogy of Shulman (1986) who said that Pedagogical Content Knowledge (PCK) is very important to the teaching profession as the understanding of how topics and strategies in specific subject areas are understood and misunderstood. Further, Shulman said that pedagogical thought and action go through the following stages: understanding/perception; modification/transformation; teaching; evaluation; feedback; reflection. For a teacher to cope with the above professional studies are required, that is a. pedagogical content knowledge and curriculum studies (Shulman, 1986; Shulman, 1987). Turner-Bisset (1999) suggests a course that would instill the necessary qualifications and focus on the following fields: substantive knowledge, syntactic knowledge, beliefs about the subject, knowledge of curriculum, knowledge of contexts, knowledge of self, didactic training, knowledge of learners, knowledge of objectives and learning outcomes, general pedagogical knowledge, pedagogical didactic amalgam and learning subject. Therefore, teachers must possess PCK of their content area in order to facilitate students' learning (Ball, 2000).

## **METHODS**

### **Research Design**

The study utilized qualitative phenomenological design. Qualitative data sources include observation and participant observation (fieldwork), interviews and research

questions, researcher's impressions and reactions (Myers 2013). Moreover, the qualitative research design is interested on how people interpret their experiences, how they construct their worlds and what meaning they attribute to their experiences (Merriam and Tisdell, 2015). This study employed phenomenological approach to describe the experiences of non-English majors teaching English subject. Since it deals with experiences, I consider phenomenology as the most appropriate qualitative design for my study. As emphasized by Creswell (2006) a phenomenological study describes the meaning for several individuals of their lived experiences of a concept or a phenomenon. It is accentuated that the basic purpose of phenomenology is to reduce individual experiences with a phenomenon to a description of the universal essence (a grasp of the very nature of the thing). He emphasized that to this end, qualitative researchers identify a phenomenon (an object of human experience).

### **Research Site and Participants**

The informants and participants of the study were 17 non-English major elementary teachers from public schools of Davao del Sur Division who have been assigned to teach English subjects in their respective schools for one to four years now. These schools include the big schools in Santa Cruz South: Santa Cruz Central Elementary School, Tuban Elementary School and Apolinar Franco Elementary School. The researcher chose the three big schools to gather a better data needed for the success of the research. The school administrators of the selected schools helped to identify the participants of the study to easily identify needed teachers who can participate. For the in-depth interview, the I chose ten non-English major teachers and another seven for the Focus Group Discussion. In qualitative research, the informants should be well informed of the interview to be done, the time and place set, to their own convenience (Creswell, 2007; Jamshed, 2014; Mason, 2010). In qualitative research for the identification and selection of information-rich cases related to the phenomenon of interest (Tongco, 2007; Palys, 2008; Teddie and Yu, 2009). Since key informant diversity is important to avoid one-sided or biased results, they vary in age, gender, years of teaching English and specialization of the degree earned so the researcher could look at varying perspectives and underlying issues or problems (Schwadel et al., 2010). The informants and participants age range from 23 to 60 years old. There are males and females who will participate in the study. All of them have been teaching English subject from one year to four years because it takes between four and seven years of experience for an individual to develop into a competent teacher (Unal et al., 2012). Teachers with three or fewer years of experience are most likely to be less effective on average and are more likely to be teaching in high-poverty schools (Rice, 2010). The criteria set by the researcher to ensure rich and varied responses that will serve as data for the study. The researcher will use pseudonyms to increase anonymity of the participants, thus, upholding confidentiality of their identities.

### **Data Analysis**

In this study, thematic analysis was used to gain insight and knowledge from data that were gathered. The method involved distilling data and determining broad patterns to conduct more granular research and analysis. The researcher coded every two or three lines of text to identify key words or concepts. To avoid misinterpretation

and biases, the data were reviewed with the help of a qualitative research expert. That is to read and re-read the data, double-check the codes to make it more consistent and valid. Emergent themes were identified after the codebook was prepared. The codebook was used to identify themes and sub- themes that emerged from patterns like conversation topics and vocabulary. These themes were defined sufficiently. The name of each theme was finalized with description and illustration of quotations from the original text (Attride-Stirling, 2001; Braun et al., 2006). The use of coding and audit trail were utilized in the discussion and analysis of the study since it utilized thematic analysis. The codes used for in-depth interview are (IDI01, IDI02, IDI03...) and for focus group discussion (FGD01, FGD02, FGD03...). The codes were utilized to label the transcribed interviews of the participants of the study.

## Trustworthiness

To demonstrate the reliability of this qualitative content analysis, using concepts like credibility, confirmability, transferability, and dependability—adopted from Lincoln and Guba's (1985) model, which provides four criteria—was used. The goal of credibility is to bolster the claim that the investigation's results are important enough to pay attention to.

## RESULTS

### Profile of Participants

The informants and participants of my study were 17 non-English major elementary teachers from public schools of Davao del Sur Division who have been assigned to teach English subjects in their respective schools for one to four years now. These schools include the big schools in Santa Cruz South: Santa Cruz Central Elementary School, Tuban Elementary School and Apolinar Franco Elementary School not exceeding 10 years in service. Ten of them participated in the in-depth interview and seven in the focus group discussion. These informants, a mixture of seven male and ten females, and ages that range from 23 to 31 years old, voluntarily participated in this study without expecting any return.

**Table 1**

*Profile of Participants*

No.	Code	Sex	Age	Position	Year in Service	Study Group
1	IDIRR01	Male	23	Teacher – 1	2	IDI
2	IDIRN02	Male	30	Teacher – 2	6	IDI
3	IDIVF03	Female	23	Teacher – 1	2	IDI
4	IDIME04	Female	24	Teacher – 1	3	IDI
5	IDIRD05	Male	24	Teacher – 1	2	IDI
6	IDICP06	Male	29	Teacher – 2	7	IDI
7	IDIAC07	Female	25	Teacher – 1	4	IDI
8	IDILA08	Male	26	Teacher – 1	3	IDI
9	IDIJP09	Female	28	Teacher – 2	4	IDI

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10	IDJJC10	Female	24	Teacher – 1	2	IDI
11	FGDZL01	Male	25	Teacher – 1	3	FGD
12	FGDAW02	Male	32	Teacher – 2	6	FGD
13	FGDBD03	Female	24	Teacher – 1	2	FGD
14	FGDDG04	Female	24	Teacher – 1	2	FGD
15	FGDKE05	Female	26	Teacher – 1	4	FGD
16	FGDRD06	Female	31	Teacher – 2	7	FGD
17	FGDAS07	Female	27	Teacher – 1	5	FGD

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### The Travails of Non-English Major Teachers in Teaching the English Language

**Assigned to teach English Despite Limited Capability.** This is the first theme that emerged basing on the responses of the participants of the study. This theme talks about why there are non-specialized English teachers teaching the English subject. The reasons are there were no applicant capable teachers who are specializing in English. Second, they consider new teachers, and they can take up the loads. Third is that they have exposure to English from their previous jobs and some just were appointed because their administrators trusted them that they can be able to carry out the subject despite they are not specializing it.

It was already assigned to me in my first day of my service due to lack of teachers assigned in English subject. (IDIJP09)

No other teacher. (FGDZL01)

**Challenges during the Adjustment Period.** The second theme is that teachers have challenges during the adjustment period after they have received the loads that are not aligned to their majors and they just accepted the assignment because they have no choice but to accept the load even if it is outside their expertise. Some however got shocked and felt anxious about how they could deliver the lessons comprehensibly using English language.

I was very shocked. I didn't expect it since I'm majoring in TLE and there's a feeling of fear that I can't team correctly to the kids. But in the end, I can handle it, I just need to study. (IDICP06)

I was shocked and a little bit nervous because I am not expert in English language. (IDIRR01)

**Pedagogical dynamics of the English subject.** This theme emerged when the responses of the participants were centered in the problems like limited background knowledge and strategies to teach the subjects, capability of teachers to speak English and the English proficiency of learners. These are the common challenges that teachers faced in their ends as non-English teachers.

I was thinking on how to apply a correct technique so that I can deliver the correct idea and concept of the lesson. Particularly the strategy that will be going to use. (IDIVF03)

I'm confused of what strategy that I'm going to use to teach them effectively the lesson. (IDILA08)

**Table 2**  
*The Travails of Non-English Major Teachers in Teaching the English Language*

Essential Themes	Core Ideas
Assigned to teach English despite limited capability	No other teacher who are aligned
	Being newly hired and old teachers already have assigned/preferred loads
Challenges of the Adjustment period	Exposure to English language in previous jobs
	Principal observes the teacher's ability
	Being shocked, scared, and nervous at first
Pedagogical dynamics of the English subject	Having no choice but to accept the teaching load
	Being okay with it but anxious about extra preparations
	Became self-conscious of own English grammar
	Teachers have limited knowledge in English teaching methods
Insufficient teaching resources and classroom management strategies	Teachers have no concrete and deep understanding of English as a subject
	Teachers have poor mastery of the topic
	Not knowing the answer to a student's question
	Having to spontaneously speak in straight English
	Students' lower English proficiency than their own level
	Students' low interest for the subject
	Students' preference for Mother tongue
Limited teaching materials	
Insufficient teaching resources and classroom management strategies	Students have no books
	Many topics in supplied books are too advanced
	Students' short attention span
	Dealing with misbehaving students
	Multiple roles of being a disciplinarian and teacher at the same time
	Thinking that they were not always effective esp. when students didn't like the topic or when many topics were being rushed in short time
Thinking that they were not very effective since they employed only very limited teaching strategies	

**Insufficient teaching resources and classroom management strategies.**

The last theme that emerged is the problem of teachers to access learning resources and the classroom management strategies in order to build up a conducive learning environment. These problems are very common among those working in the field and it adds up to their burden because they have no learning materials which they can use in their classroom instruction.

There's no books available at first when the textbooks came it seems difficult to the kids though it is already in their level and I find it hard because I need to adjust since I should use different style of teaching. (FG04)

**Mechanisms that Participants Employ to Manage the Challenges in Teaching the English Language**

Deepening and widening of learnings. This theme emerged when the respondents were asked what mechanisms they employed to manage the challenges they encounter. The participants responded that one mechanism to overcome their problem was to

welcome the challenges as an avenue to new learning and a window to widen and deepen their learnings. They consider the challenge as an opportunity to explore resources like asking help from their colleagues and doing research other than reading books and online sources to enrich their learning in English language.

Through research, constant reading as well as strategy making. I also ask my co-teachers handling English subjects. (IDIRD05)

Do a lot of research (browsing the internet) and asking help from colleagues. (IDIJP09)

**Implementing Student centered Instruction.** This is the second theme that emerged after collecting and analyzing the data in this study. The participants of the study utilized student centered instruction as a coping mechanism in the difficulty of non-English teachers handling English. The student-centered approach to teaching has been the common go to instruction since teachers will only facilitate and it doesn't require much time for preparation.

I always use discovery Approach-quite effective especially I handle GT/ First Section. (IDIRR01)

Discovery approach I always use even in other subject because it's very useful. (FGDZL01)

**Setting and tracking performance goals thru the annual evaluation.** This is the last theme that emerged as one of the coping mechanisms of non-English teachers handling English subject. The participants of the study try to track their performance and identify their strengths and weaknesses. The participants also try to look in areas that needs improvement and areas that needs to learn more.

It helps a lot so that the teacher can know his/her level of teaching performance and can improve it next time. (IDIJC10)

It helps me know my strength and weaknesses. That helps me what and when to provide. (IDIRD05)

**Reflecting on self-effectiveness.** The last theme that emerged has something to do with the reflective aspect of teachers wherein they tend to assess and evaluate their own performance by the way how learners respond, participate, perform and yield learning outcomes throughout the lesson. Whenever they found that students manifest these, they believe that they have done their work effectively. On the other hand, teachers will only feel ineffective if students are not doing well in class and they only employ few learning activities and that signifies that they fell short.

Yes, because at the end of the school year my learners would be able to use the rules of grammar in their communication. (IDILA08)

I think so. From the start of classes, they refuse to recite during English class but, now they are confident enough to stand in front of the class to present their work, give examples or do oral recitation. (IDIVF03)

**Table 3**  
*Mechanisms that Participants Employ to Manage the Challenges in Teaching the English Language*

Essential Themes	Core Ideas
Deepening & widening own learnings	Studying the lecture scope beforehand Utilizing internet-available information and keeping references of ICT learning material Asking help from more experienced teachers Attending English language training seminars Using negative feedback to refine teaching approach and correct weak points Translating English into more comfortable languages Employing strategies to better English comprehension
Implementing student- centered instruction	Using the Discovery approach Employing activities that require critical thinking Utilizing a synergy of different strategies based on their success with students Refreshing teaching strategies according to students' multiple intelligences Conducting activities that generally engage students Holding reliable participatory activities to motivate and capture students' attention
Setting and tracking performance goals thru the annual evaluation	Helping track teachers' performance Evaluating teachers' strengths and weaknesses Gauging areas of insufficiencies and knowing areas to improve on Assessing own accomplishments vis-à-vis set expectations Making new specific targets based on evaluation results
Reflecting on self -effectiveness	Compensating lack of expertise with extra effort and hard work to make students understand Seeing their effectiveness in students' responses during lessons, scores during tests, and increased confidence in oral recitation/ presentations Seeing their effectiveness in learners' gained knowledge and skills like correct usage of grammar and expressing ideas Being conscious when students did not like the topic or when many topics were being rushed in short time Being self-aware to not limit employing various teaching strategies

### Insights that participants can share to the general academe

**Knowledge enhancement and flexibility.** This is the first theme that emerged after the participants of the study were asked if what are their insights of handling non-specialized subjects. Most of them answered that despite of the situation they try to enrich their selves with self-directed learnings. The non-English teachers are doing their best to do extra effort to advance their readings to master the subject matter. Moreover, these teachers too are open to constructive criticisms for growth so that whenever there are mistakes, they can be able to easily correct and learn from it.

We cannot give what we don't have. Thus, we have to keep ourselves updated as teachers as to the modern trends of teaching English as shared language. (IDIAC07)

Study the lesson before teaching. (IDILA08)

A teacher must practice an unending learning. Even after you graduated, you must pursue a greater education. (FGDZL01)

**Open Management support.** The teachers saw multiple of ways to aid teachers in the dilemma of handling non-specialized subjects from their field. One of which is that the administration should provide enough professional development programs that will uplift the level of teachers and their capabilities to teach the subject. Teachers also see that there should be an open communication of teachers and administrators to easily address hitches in the implementation of the curriculum. Other than that, the administrative support for providing sufficient learning materials and supporting learning activities that will result to authentic learning should be realized for maximum and positive outcomes. Lastly, teachers see it as a very positive thing to address the problem of the continuous mismatch of teaching loads in the Department of Education is to make teachers really be aligned to their field of expertise from their baccalaureate degree.

A teacher must practice an unending learning. Even after you graduated, you must pursue a greater education. (FGDZL01)

Since it is already in the situation that teachers are teaching subjects that they are not aligned to their major then the DepEd should provide trainings for them so that they can be equipped and ready. (FGDBD03)

**Self-improvement.** This theme emerged through the responses of the participants that despite of their situation teachers is still committed to enhance and learn knowledge and skills. The non-English teachers handling English subject see the mismatch of teaching loads as an opportunity to learn rather than a problem. Most of them see that there are skills that were improved, and they gain mastery in teaching the English subject.

I became more fluent in using English in conversation. Improves my grammar not only in writing but also in talking to others. (FGDZL01)

I gain a mastery in this subject and a better technique in teaching it to my students. (FGDRD06)

**Commitment to teaching.** The last theme emerged talks about the appetitive faculty of teachers on how they look and embrace the challenge of the out of field teaching. Some non-English Teachers really have the passion to educate young and embrace the adversities. These teachers believe that the need to be motivated despite of their situation. They really believe that doing their work with motivation will extract best works out from theme and they can be able to surpass it despite of the heavy loads.

It's not important what I know in a particular subject or what degree did I finish, but what matters is that my heart is too reach out to students who lacks learning. (IDIVF03)

I have no complaints. I must do what I have to d and give what is expected from me. Never lose the motivation, as long as you are motivated then you can do everything. (IDIJP09)

**Table 4**

*Insights that participants can share to the general academe*

Essential Themes	Core Ideas
Knowledge enhancement and flexibility	Opportunity for growth while teaching the lessons
	Obliging to exert extra efforts as a teacher to master subject matter
	Adaptability to teaching assignments
	Responsiveness to students' pace of learning and level of understanding
Open management support	Openness to constructive criticism for improvement
	Providing continuous training opportunities for teachers
	Conducting English language trainings and seminars for teachers' improvement and confidence
	Supporting teachers to pursue higher/graduate education
	Having open line of communication between the administration and teachers
	Creating avenues that allow teachers to connect with colleagues and voice concerns to the administration
	Supplying supplementary learning materials to teachers
	Organizing instructional support and plans from higher ups
	Supporting activities outside the classroom as English learning enrichment for students
	Assign teachers to their areas of expertise for greater productivity
Consider teachers' strengths and weaknesses in teaching subjects	
Self-improvement	Align teachers to their course background and field of mastery
	Improvements in English grammar
	Confidence to communicate in English in non-work settings
	Acquisition of teaching strategies to aid students' learning
Commitment to teaching	Perseverance and self-discipline to study
	English outside of field of expertise
	Study and do research on the language beyond the given materials
	Practice to have command over complex topics for the students' sake
	Do not hesitate to approach colleagues and seniors for assistance
	Embrace the challenge of being assigned to teach a subject outside own's expertise

## DISCUSSION

Upon the conduct of the study based on the date collected from the participants of the study 4 themes emerged: (1) assigned to teach English despite limited capability; (2) challenges of the adjustment period; (3) pedagogical dynamics of the English subject; and (4) Insufficient teaching resources and classroom management strategies.

The first theme is evidence that there is an insufficiency of teachers who will handle the English subject. The lack of a specialized teacher in a school is a reason for other teachers to be designated to a teaching load beyond their specialization.

This is supported by Ingersoll, (2002) in his study who pointed out that most teachers, even in disadvantaged schools, hold basic qualifications, a significant proportion of these qualified teachers, especially in disadvantaged schools, are assigned to teach classes out of their fields. The extent of experience of teachers in out-of-field subjects raises further questions. It may be that teachers tend not to teach out-of-field across a wide variety of subjects but instead stick to the same ones. They prefer to teach the subject they have from the previous since they have prepared from it. (Weldon, 2016).

One problem that non-English teachers encountered is the nature of the subject and that is being dynamic. The English language is dynamic as it changes from time to time and causing the non-English teachers to encounter problems. One of the problems mentioned by the participants is the limited background of teachers to teach the subject and loaded up the burden of teachers on how to deliver the curriculum. Rollnick et al (2008) stressed out in their case study the relevance of the subject matter knowledge to pedagogical content knowledge or how teachers teach. It can be a great predictor to teacher's instructional performance and how teacher yield learning outcomes. Loveless (2008) emphasized the importance of conceptual subject domain knowledge in primary teacher education and to implement the curriculum.

The non-English teachers stated that that the lack of materials needed in instruction added the burden. For them it is very difficult to teach the subject at first, since most of them are not specializing it, but it is more difficult for them since they experienced the insufficiency of materials that will back them up. Aside from that, they also experienced problems in dealing misbehavior of students. Donkor (2010), mentioned in his study that there is a significant effect of utilizing instructional materials in the teaching-learning process. As stipulated, traditional printed instructional material and video-based presentation can be used and either of the two have equal positive effectiveness. It has been also found out that the two instructional materials have the same effect in terms of delivering theoretical knowledge though they differ in practical knowledge a bit. This is also supported by Chingos and Whitehurst (2012), stated in their study that there is a clear manifestation of the effectiveness of instructional materials. It has been proved that it has large effects on student learning.

The first theme in the mechanism that participants employ to manage the challenges in teaching the English language is they sharpen their knowledge by learning on their own. The participants do extra effort to read in advance before the lecture through the ICT learning materials given. Aside from that, teachers utilized internet as haven for answering confusions and go to tool for aiding the lesson planning and implementing. Other participants of the study ask assistance from the teachers to solve hitches. More of that, they attend English language trainings and seminars to deepen their knowledge to language teaching. The participants as well used of English learning management like translating the language into more comfortable languages and employ strategies to better English comprehension. This is supported by the claim of Buczynski and Hansen, (2010) that teachers were transferring knowledge or skills gained in professional development to their classrooms instructions and in the implementation of the curriculum.

A part of this student-centered approach teaching is what they call inquiry-based learning by which teachers utilized discovery strategies like asking questions that will lead the topic lesson. Other than that, teachers utilized flexible learning strategies that will cater the multiple intelligences of students. Teachers in this study engaged the learners in the learning process as active participant of the learning process to learn

independently. This is supported by Zohrabi, et.al. (2012) that teachers need to be given a chance to act freely on teaching, to train them on developing their understanding in the implementation of various approaches, and to reflect how they perceive the system should work.

The assessment and evaluation of teachers help the non-English teachers handling English language subject to know their teaching performance. The participants of the study hold to the feedback of their teaching performance by knowing their strengths and weaknesses. This is anchored to the study of Taylor & Tyler, (2012) that teachers are more productive in post-evaluation years, with the largest improvements among teachers performing relatively poorly before the evaluation. The results suggest that teachers can gain information from evaluation and subsequently develop new skills, increase long-run effort, or both. This will help them to improve their strengths and enrich their weaknesses.

The insights of the participants of the study in the light of teaching the subject that they are not specializing is that they reflect on how effective they are as means of verifying their teaching performance. They stipulated that as a means of reflection they rely to how students respond to them and how students are performing in the class. The effectiveness of the development of pedagogical reflection using the reflective learning and technological conditions of its implementation, enabling every teacher being on their professional level, learn the pedagogical reflection basics and apply them in their pedagogical work (Biktagirova et al., 2014).

The outlook of teachers who are non-English majors handling the subject adjust to the need of the curriculum by advancing their own learnings and being receptive as a teacher. Goodnough (2001) stated in her study that through critical self-reflection, teachers became more adept at integrating many aspects of their professional knowledge, subject-matter knowledge and pedagogical-content knowledge.

The suggestion of most of teachers experiencing the mismatch of teaching loads is that teachers should receive faculty development programs that will enhance their level and their pedagogical skills. Tickle, Chang et al., (2011) found out in their study that administrative support was the most significant predictor of teachers' job satisfaction, while teachers' job satisfaction was the most significant predictor of teachers' intent to stay in teaching. It was also confirmed that administrative support mediates the effect of teaching experience, student behavior, and teachers' satisfaction with their salary on teachers' job satisfaction and intent to stay in teaching.

Based on the results of the study the continuous learning of teachers through the direct exposure of the English language helps their own learning and they are also building up their confidence to speak the language as they are used to. The teachers' learning was planned (self-regulated), but mostly it occurred in a non-linear (both external and self-regulated) or spontaneous (externally regulated) way. It is concluded that teachers do not always self-regulate their learning, but they mostly do self-regulate their teaching practice (with learning as a result). They try to evaluate their practices which result to self-directed learning through self-assessment (Van Eekelen et al., 2005).

Upon the data given by the participants of the study it has been found out that the attitude of teachers towards learning the field that is out of their expertise helps them to be on track. Their capacity to be resilient fluctuated because of the influences of the personal, relational and organizational settings in which they worked. The findings have implications for initial and inservice professional development programmes, school leadership and the quality retention of teachers (Gu et al., 2013).

## Implications for Educational Practice

The study would serve as basis and help the curriculum developers and administrators to have adjustments in the findings found in the data. From the given problem that non-English teachers are handling English subject and they were just chosen based on their capability to teach the subject. In that case teachers don't have the choice but adapt to the situation despite the difficulties that they encounter. These findings will help the Department of Education to remediate the problem in the teaching loads of the teachers for them to specialize a subject. Despite the fact that the primary teachers are considered generalist, but it would be an advantage if they are specializing one subject to professionally grow and deliver quality instruction. Based on the findings of the study, teachers want that there will be trainings that will enrich and deepen their knowledge in the English subject. This data will be a great basis to suggest reinforcement trainings for non-English teachers to undergo trainings and workshops to have the knowledge and skills to implement the curriculum. Teachers who were subjects of the study shared that the open management support from the administrators would help the non-English teachers to easily cope the mismatch of the teaching load. Thus, the findings of the study is a great evidence and will serve as basis for adjustments to fully implement the primary education curriculum. This will also be a loophole that really needs to be addressed to deliver a quality education for the primary learners.

## REFERENCES

- Aaronson, D., Barrow, L., & Sander, W. (2007). Teachers and students achievement in the Chigago public high schools. *Journal of Labor Economics*, 25(1), 95-135.
- Predictors of English Language Self-Efficacy of Junior High School Students
- Adetunji, A. T., Smith Jr, R. F., & Oyewole, O. C. (2024). Qualitative Study on the Impact of Social Media on the Liberian SME Business Owners. *Asian Journal of Sociological Research*, 7(1), 32-41.
- Ball, Jessica (2010). Educational Equity for children from diverse language backgrounds: Mother tongue-based bilingual or multilingual education in the early years.
- Creswell, J.W. (2003). *Research Design. Qualitative, quantitative, and mixed method approaches* (2nd edition). CA: Sage Publication.
- Creus, M. A. P., Gatpandan, M. A. B., & Amboy, J. J. N. (2018). Lived Experiences of Higher Education Instructors in Senior High School: Challenges and Impact on Professional Development. *AJE*, 4(1).
- Donkor, F. (2010). The comparative instructional effectiveness of print-based and video-based instructional materials for teaching practical skills at a distance. *International review of research in open and distributed learning*, 11(1), 96-116.

- Forrester, D., McCambridge, J., Waissbein, C., & Rollnick, S. (2008). How do child and family social workers talk to parents about child welfare concerns?. *Child Abuse Review: Journal of the British Association for the Study and Prevention of Child Abuse and Neglect*, 17(1), 23-35.
- Ingersoll, M. (1999) "The Problem of Underqualified Teachers in American Secondary Schools." *Educational Researchers* 28:26-37. Jawarska, E. and Porte, G. (2007). *Forty Years of language teaching*, London: Cambridge University Press.
- Loveless, T. (2008). *The Misplaced Math Student: Lost in Eighth-Grade Algebra. The 2008 Brown Center Report on American Education. Special Release.* Brookings Institution.
- Mukeredzi, T. G. (2013). The Journey to Becoming Teaching Professional in Rural South Africa and Zimbabwe. *Australian Journal of Teacher Education*, 38(10). <http://dx.doi.org/10.14221/ajte.2013v38n10.6>
- Myers, J. L., Well, A. D., & Lorch Jr, R. F. (2013). *Research design and statistical analysis.* Routledge.
- Schwadel, P., & Dougherty, K. D. (2010). Assessing key informant methodology in congregational research. *Review of Religious Research*, 366-379.
- Shimon, J. M., & Brawdy, P. (2001). *A Good Teacher Can Teach Anything?*.
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *Educational researcher*, 15(2), 4-14.
- Turner-Bisset, R. (1999). The knowledge bases of the expert teacher. *British educational research journal*, 25(1), 39-55.
- Zohrabi, M., Torabi, M. A., & Baybourdiani, P. (2012). Teacher-centered and/or student-centered learning: English language in Iran. *English language and literature studies*



## Predictors of English Language Self-Efficacy of Junior High School Students

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### ABSTRACT

This study aimed to determine if perfectionism and foreign language anxiety significantly predict English language self-efficacy of junior high school students. This investigation utilized a non-experimental quantitative research design employing descriptive-correlational technique. Data were sourced through survey involving 206 randomly selected grade 10 students enrolled in Malita West District, Malita, Davao Occidental. This study utilized an adapted survey questionnaire to obtain data from the respondents. The tool is divided into three sections, namely; almost perfect scale-revised, foreign language anxiety scale and self-efficacy questionnaire. Using weighted mean, perfectionism and English self-efficacy among junior high school students were assessed to be both high, while foreign language anxiety of the students was rated moderate. Pearson product moment correlation revealed that there is a significant relationship between perfectionism and foreign language anxiety to English self-efficacy. Finally, when regressed to overall English self-efficacy, it was found out that perfectionism and foreign language anxiety were both significant predictors and thus best influenced English self-efficacy among junior high school students.

**KEYWORDS:** Education, perfectionism, foreign language anxiety, English language self-efficacy, junior high school, quantitative, descriptive correlational technique, Philippines

### INTRODUCTION

Self-efficacy is one of the driving forces that make people pursue a goal and overcome obstacles because people with higher self-efficacy do their best and do not easily give up when confronted with difficulties (Ersanli, 2015). In language learning, students are expected to have a certain level of efficacy to fully master and become competent in the target language. Learning English language, however, is one of the foremost challenges these days. The actual scenario is that several students who learn English as a second language and are in regional medium schools fail to achieve a satisfactory level of proficiency in English which in a way caused their low self-efficacy (Halder, 2018).

Moreover, this view has led researchers to emphasize self-efficacy on specific tasks and to pursue a multifaceted approach to the study of the various expressions of self-efficacy across diverse situations. In the academic domain, Pastorelli (2001), indicated that scholars focused on students' beliefs to successfully master specific academic subjects and curricula areas and to self-regulate one's own studying and

learning activities. Also, Pajares et al., (2005), analyzed that many evidences support a positive association between students' beliefs that they can regulate their own learning (self-efficacy) and academic achievement.

In the study of Britner et al., (2006) results revealed that self-efficacy significantly correlated with English self-efficacy, with each other, and with students' grades obtained in English. In the study, girls had higher English grades than did boys, but girls and boys reported equal self-efficacy. In addition, a study of Caprara et al. (2008) examined the developmental course of academic self-efficacy from early to late adolescence and found that high levels of academic self-efficacy measured at the age of 12 were associated with higher high-school grades and with a lower probability of dropping out of school.

As mentioned by Ayoobiyan et al., (2015) research findings from several academic domains have demonstrated that students' judgments of their own academic capabilities or self-efficacy beliefs influence their learning experience and performance. Also, (Ersanli, 2015; Pajares, 1996; Jackson, 2002; Ching, 2002; Margolis & McCabe, 2003) agreed on the idea that individuals who perceive themselves capable of a given task will probably engage more than when they do not feel competent enough.

In the Philippine scenario, High school students are evaluated using N.S.A.T. (National Secondary Achievement Test) at the national level by the Department of Education. In a report given by the SEAMEO INNOTECH, the overall achievement rate in the 2000/01 NSAT was 53.4%. This result is only on the passing mark. In consequence, there are many factors why such performance is manifested and among them are low reading comprehension and low level of writing. These situations of high school students in regards to their academic performance may turn to positive outcomes, when people in their environment give them support, encouragement and persuade them that they can function and do well in a specific task in their performance. In turn, they can get enough courage to continue and strive and feel competent and effective in specific assignments they perform. It is significant for high school students to know their self-efficacy to perform better in their school (Alieto et al., 2019).

In connection to this, the Department of Education continuously improves its programs and implementations that will enhance the capability of the English language as a medium of instruction and interaction, and a similar problem is still manifested in Malita, Davao Occidental. Students were hesitant to participate in classroom activities, especially in the English subject, due to a lack of self-efficacy. Also, they were afraid and anxious every time they communicate using the English language.

Therefore, higher levels of self-efficacy will lead to learners' persistence on tasks, no matter how anxious they are in doing these tasks. In the context of learning other languages, students who have a higher level of self-efficacy are those who overcome anxiety in language learning and do steps that can help them to overcome the problem (Besharat et al., 2012; Chan, 2007).

Locally, no studies were conducted as to the intention of determining the connection of perfectionism and foreign language anxiety with English language self-efficacy among junior high school students. None so far has ventured such research topic in University of the Immaculate Conception. It is in the above context that the researcher opts to determine the relationship between these variables because it is crucial for an institution to bolster its academic program outcomes.

In this paper, the researcher intends to analyze the connection of perfectionism and foreign language anxiety with English language self-efficacy among junior high

school students. As an English teacher himself, the results of this study could help teachers like him to assist students in addressing their anxiety in learning the English language

## **Theoretical Framework**

This study was anchored on the following theories and propositions: First, Horwitz, Horwitz and Cope's Theory of Foreign Language Anxiety defined FLA as a distinct complex construct of self-perceptions, beliefs, feelings, and behaviors related to classroom language learning arising from the uniqueness of language learning process. Up to the time the theory was introduced, it was understood that anxiety research had been unable to establish a clear-cut relationship between anxiety and foreign language achievement (Scovel, 2000). Horwitz, Horwitz and Cope thus suggested that one reason behind this failure was the lack of anxiety measures specific to foreign language learning. In addition, the study hinges on Krashen's theory of second-language acquisition is his distinction between language acquisition and language learning, a distinction which other second-language acquisition researchers have called "perhaps the most important conceptualization in the field and [one which] has made possible the most productive models of second language acquisition yet developed" (Tollefson et al., 1991). This study also is anchored on Gardner (1985), who argued that the measures directly concerned with foreign language anxiety were more appropriate for studying foreign language anxiety than general anxiety measures. Gardner added that not all forms of anxiety would influence second or foreign language learning, but a construct of anxiety which is not general but instead is specific to the language acquisition context is related to second language achievement.

## **METHODS**

### **Research Design**

This quantitative study utilized the descriptive-correlational approach. The approach was used to find out the relationship between high school students' perfectionism and foreign language anxiety as predictors of English language self-efficacy. The descriptive-correlational research design was appropriate because the researcher sought the relationship of the two variables using statistical data.

### **Place of the Study**

The study was conducted in the Municipality of Malita in the province of Davao Occidental. Malita is a coastal municipality and serves as the provincial capital of Davao Occidental. The municipality has a land area of 883.37 square kilometers or 341.07 square miles which constitutes 40.83% of Davao Occidental's total area. The survey was conducted at the three high schools of Malita West District. The researcher chose these schools because it was observed that many students were hesitant to participate in classroom activities, especially in the English subject due to lack of self-efficacy. Also, they were afraid and anxious every time they communicate using the English language.

## Respondents

The respondents of this study were the 208 junior high school students specifically Grade ten enrolled in the three public schools in Malita West District, Malita, Davao Occidental, namely; School A, School B, and School C during the school year 2019-2020. Stratified sampling was used to determine the number of respondents per school. School A has a population of 42 grade ten students; School B has 80; School C has 86 enrollees. The participation of the respondents in this study was voluntary. Hence, the respondents were given the right not to participate or to withdraw in his participation during the conduct of this study. In order to ensure nondiscrimination, the respondents opted not to disclose their names in their questionnaires and their answers were treated with high confidentiality.

## Statistical tools

This study utilized the following statistical treatments: **Mean and Standard Deviation** was used to determine the level of perfectionism, foreign language anxiety and their English language self-efficacy of junior high school students of Malita West District. **Pearson r** was also used to correlate the perfectionism, foreign language anxiety and English language self-efficacy of the respondents. **Multiple Regression** was used to determine if perfectionism, foreign language anxiety significantly predicts the English language self-efficacy of the students.

## RESULTS AND DISCUSSION

### Level of Perfectionism

Shown in table 1 is the level of perfectionism among junior high school students in Malita West District. The indicators used in this variable are adaptive perfectionism and maladaptive perfectionism.

**Table 1**  
*Level of Perfectionism*

Indicators	Mean	Standard Deviation	Descriptive Rating
Reading skill	3.80	.674	High
Writing Skill	3.75	.704	High
Speaking Skill	3.41	.667	High
Listening Skill	3.66	.694	High
<b>Overall Mean</b>	<b>3.66</b>	<b>.591</b>	<b>High</b>

The overall mean of perfectionism is 3.74 or high. The standard deviation is .468 which means that the students' responses are homogenous. This means that the students' perfectionism is oftentimes manifested. It can also be inferred that perfectionism is a personality characteristic involving a tendency to place excessive emphasis on precision and organization. These findings relate with Castro's (2007)

study which cited that the setting and striving for unrealistic personal standards are unreachable, excessive concern over mistakes and doubts about the quality of personal triumph are seen. Moreover, Enns et al., (2002) corroborates that neurotic (or maladaptive) perfectionists are characterized as those who set unattainably high standards, allow for a relatively small margin of error, and tend to display an inability to be content or satisfied with their own performance. Alternatively, "normal" (or adaptive) perfectionists are defined as those who set high, but attainable standards, take pleasure in their performance and tend to be more optimistic about future success.

The Adaptive perfectionism got a category mean score of 3.81 which has a descriptive equivalent of high that infers junior high school students' perfectionism is oftentimes manifested. In particular, the highest mean is 4.21 in the item that the students try to do their best at everything they do, with a descriptive rating of very high. Conversely, the lowest mean is 3.50 with a description of high which states that, students think things should be put away in their place. Thus, it infers that adaptive perfectionists work well in environments that require cooperation. They generally may not feel compelled to take on leadership roles, but they are more prone to seek joint relationships (Stoltz & Ashby, 2007). Lo and Abbott, (2013) validated that those described as adaptive perfectionists have also been found to report fewer feelings of inferiority, lower levels of procrastination and negative affect, and higher levels of self-efficacy, self-esteem, and positive affect.

The Maladaptive perfectionism got a category mean score of 3.68 which has a descriptive equivalent of high that infers junior high school students' perfectionism is oftentimes manifested. In particular, the highest mean is 3.86 with a descriptive rating of high means that they often feel frustrated because they can't meet his/her goals. Conversely, the lowest mean is 3.40 with a description of high which states that, they are never satisfied with their accomplishments. Thus, as indicated by Stoltz et al., (2007) that maladaptive perfectionists students possess a need to control their environment and when events do not go as planned, they develop negative attitudes. Therefore, if they see imperfection in their lives, they are more apt to become discouraged and seek an alternative way to gain acceptance (Stoltz et al., 2007). Also, Lo et al., (2013); Rice and Slaney, (2002) added that maladaptive perfectionists have been found to report lower levels of self-esteem, greater feelings of inadequacy, and higher self-criticism than adaptive perfectionists.

## **Level of Foreign Language Anxiety**

Table 2 reveals the level of foreign language anxiety among junior high school students in Malita West District. The indicators used in this variable are communication apprehension, test anxiety, and fear of negative feedback. The overall mean of foreign language anxiety is 3.48 or moderate. This means that the students have done and manifested foreign language anxiety sometimes. The standard deviation is .472 which means that students' responses are homogenous.

**Table 2***Level of Foreign Language Anxiety*

Indicators	Mean	Standard Deviation	Descriptive Rating
Communication Apprehension	3.48	.509	High
Test Anxiety	3.47	.528	High
Fear of negative feedback	3.48	.570	High
<b>Overall Mean</b>	<b>3.48</b>	<b>.472</b>	<b>High</b>

The communication apprehension got a category mean score of 3.48 which has a descriptive equivalent of moderate that infers junior high school students manifested foreign language anxiety sometimes. The results coincide with the study of Aydin (2008) which proved that the students' communication apprehension is a fear of getting into real communication with others and it occurs in cases where learners lack mature communication skills although they have mature ideas and thoughts. To clarify, Aydin (2008) confirms that communication apprehension is an individual's discomfort in talking in front of others, thus, he or she may have difficulty in expressing his or her ideas and thoughts and encounter difficulties in understanding others. Moreover, this or some similar reactions apparently play a large role in foreign language anxiety.

The fear of negative feedback also got a category mean score of 3.48 which has a descriptive equivalent of moderate that infers junior high school students manifested foreign language anxiety sometimes. Kitano (2001) verifies that students' fear of negative feedback is an apprehension about others' evaluations, avoidance of evaluative situations, and the expectation that others would evaluate oneself negatively. Yang (2012) related that fear of negative evaluation is observed when foreign language learners feel incapable of making the proper social impression and it is an apprehension towards evaluations by others and avoidance of evaluative situations.

The test anxiety got a category mean score of 3.47 which has a descriptive equivalent of moderate; this means that junior high school students manifested foreign language anxiety sometimes. test anxiety also has a pervasive effect on EFL students, Horwitz et al. (1986) refer to it as "the apprehension over academic education". That is, the worry and nervousness learners experience in the academic setting. Therefore, this study coincides with Toth (2008) who defines that test anxiety as "the tendency to view with alarm the consequences of inadequate performance in an evaluative situation". In other words, it refers to worry over regular testing, which may become a source of frustration for learners, as their proficiency is assessed while it is being acquired.

### **Level of English language self-efficacy**

Table 3 depicts the level of English language self-efficacy among junior high school students in Malita West District. The indicators used in this variable are self-efficacy for listening, self-efficacy for speaking, self-efficacy for reading, and self-efficacy for writing in English. The overall mean of adaptive perfectionism is 3.66 with a descriptive equivalent of high. This means that the English language self-efficacy of students is oftentimes evident. Taylor (2005) recently reported that there has been a growing interest in self-efficacy beliefs within the field of language learning

such as the study of the relationship of self-efficacy beliefs and learning strategies, performance, causal attributions, and language anxiety. The results indicate that self-efficacy is a potential factor that affects learners' interest, persistence, the extent of effort learners invest in learning, the goals they choose to pursue and their use of self-regulated strategies in performing a task.

**Table 3**  
*Level of English language self-efficacy*

Indicators	Mean	Standard Deviation	Descriptive Rating
Reading skill	3.80	.674	High
Writing Skill	3.75	.704	High
Speaking Skill	3.41	.667	High
Listening Skill	3.66	.694	High
<b>Overall Mean</b>	<b>3.66</b>	<b>.591</b>	<b>High</b>

The reading skill got a category mean score of 3.80 which has a descriptive equivalent of high that infers junior high school students' self-efficacy is oftentimes evident. In particular, the highest mean is 3.94 with a descriptive rating of high means that student can understand when they read short stories in English. Conversely, the lowest mean is 3.57 with a description of high which states that, they can understand when they read a novel in English. Thus, the use of self-efficacy strategies, such as providing students with clear goals for reading tasks and giving feedback on students' progress in reading, increases reading self-efficacy (Spörer et al. 2014). Meanwhile, the speaking skill got a category mean score of 3.41 which has a descriptive equivalent of high that infers junior high school students' self-efficacy is oftentimes evident. In particular, the highest mean is 3.53 in the item that they can make dialogue in English, with a descriptive rating of high. Conversely, the lowest mean is 3.33 with a description of moderate which states that, they can speak English fluently. Thus, Huang (2010) mentioned that speaking is carried out in a real-time which demands learner's abilities to plan, process and produce the language. This poses as a difficult task for students attempting to master speaking skills, especially ESL learners.

### Correlation between Variables

Data shows that perfectionism has a significant correlation with English language self-efficacy as manifested by  $r$  value of .540 and  $p$ -value of .000 which is less than .05 level of significance (Table 4).

**Table 4**

*Test of Significant Correlation between Perfectionism and English language self-efficacy and foreign language anxiety and English language self-efficacy*

VARIABLES PAIRED	R	p-value	Remarks
Perfectionism and English language self-efficacy	.540	.000	Significant
Foreign language anxiety and English language self-efficacy	.665	.000	Significant

On one hand, this result means that an increase in the level of perfectionism among junior high school student would also mean an increase in their self-efficacy in the English language. The present results conform with the previous findings that perfectionist are related to positive characteristics, processes, and outcomes once the overlap with negative aspects of perfectionism is controlled for (Stoeber et al., 2006) and that perfectionistic strivings show a positive correlation with standards for performance (Bieling, 2003). However, it is important to note that the present study also found perfectionism and self-efficacy to be highly correlated. This finding provides further empirical support for the view that perfectionism and self-efficacy are intimately related (Frost, 2001) and indicates that most individuals who show high levels of perfectionism also show high levels of self-efficacy. Moreover, the combination of perfectionism and self-efficacy may produce a unique response to success and failure in performance situations.

On the other hand, results in Table 4 also shows that foreign language anxiety has a significant correlation with English language self-efficacy as manifested by r value of .665 and p-value of .000 which is less than .05 level of significance. This result means that the higher the level of foreign language anxiety the more would it significantly affect the English language self-efficacy of a junior high school student. As findings of previous studies have highlighted the significant level of anxiety among EFL learners, researchers start to investigate how this anxiety affects students' learning and how it correlates with other aspects, such as motivation, language proficiency, learning achievement, and self-efficacy. With many emerging studies on this topic, only a few of them focus on the connection between language anxiety and self-efficacy (Cubukcu, 2008). Even if there are some studies investigating the correlation, the findings are varied.

### **Predictors of English language self-efficacy**

Data in Table 5 first revealed that perfectionism on its individual capacity can significantly predict English language self-efficacy ( $p < .05$ ). Moreover, the data show that for every unit increase in perfectionism there corresponds .157 increases in the English language self-efficacy. Consequently, Khan (2013) cited that perfectionism is a disposition characterized by a set of excessively high standards for performance, an all-or-nothing mindset, and the strife for flawlessness. Perfectionism is accompanied by overly critical self-evaluations, concern about others' evaluations, and the emphasis on order and organization.

**Table 5**  
*Predictors of English language self-efficacy*

Predictors	Beta		Sig.	Interpretation
Perfectionism	.215	4.807	.000	Significant
Foreign Language Anxiety	.557	.000	7.798	Significant
R=.674				
R Square=				
.455 F=84.721				
p value= <.05				

Lastly, it was revealed that foreign language anxiety on its individual capacity can also significantly predict English language self-efficacy ( $p < .05$ ). Moreover, the data show that for every unit increase in foreign language anxiety there corresponds .557 increases in the English language self-efficacy. A study conducted by Cassidy and Johnson (2002) says that anxiety has been linked to the application of cognitive learning strategies and the investment of individual resources such as attention, effort, or time. Hence, both domains—perfectionism and foreign language anxiety can significantly predict the English language self-efficacy of junior high school students. As a model, 45.5% of the variation in the English language self-efficacy can be attributed to the combined influence of perfectionism and foreign language anxiety ( $p < .05$ ). Thus, 54.5% of the factors that could predict the English language self-efficacy of the junior high school students are not covered in the study.

Nokhbezare (2013) studied that self-efficacy is one's ability to succeed in specific situations, which plays a significant role in how one approaches goals, tasks, and challenges. People with high self-efficacy believe that they can do well, which allows them to undertake tasks that may be beyond their ability.

Furthermore, Abdi, (2013) mentioned that these individuals are more likely to view difficult tasks as something to be mastered rather than something to be avoided. On the contrary, individuals with low self-efficacy believe that tasks are tougher than they really are; a belief that fosters stress, depression, and a narrow vision of how best to solve a problem.

Researchers like Bandura et al.,(2003), as cited in Dornyei, (2001) found increased self-efficacy to positively influence one's choice of task, effort in completing a task, and endurance in mastering a task. Shi (2016) as cited in Tsao, Tseng & Wang, (2017) reviewed empirical research in the ESL and EFL settings done in the last 10 years and found that learners with high self-efficacy have performed better in academic, utilized more learning strategies and maintained healthy traits.

## CONCLUSIONS

Based on the findings, the following conclusions are drawn: The level of perfectionism among junior high school students was interpreted as high. This showed that junior high school students of Malita West District look at themselves as adaptive perfectionists who have fewer feelings of inferiority, lower levels of procrastination and negative affect, and higher levels of self-efficacy, self-esteem, and positive affect when compared to those classified as maladaptive perfectionists. The level of foreign

language anxiety among junior high school students was interpreted as high. This showed that junior high school students of Malita West District having anxieties in communication apprehension, test anxiety and fear of negative feedback. The level of English language self-efficacy among junior high school students was interpreted as high. This showed that junior high school students of Malita West District tend to exhibit high level of confidence in instances when they are required to speak, listen, write and read in class. There is a significant correlation between perfectionism and English language self-efficacy among junior high school students. This result means that the higher the level of perfectionism, the more a junior high school student will have a higher self-efficacy in the English language. Also, there is a significant correlation between foreign language anxiety and English language self-efficacy among junior high school students. This result means that the higher the level of foreign language anxiety the more it would significantly affect the English language self-efficacy of a junior high school student. Both domains—Perfectionism and Foreign language anxiety significantly predict English language self-efficacy. Hence, Perfectionism and Foreign language anxiety can best predict the English language self-efficacy of junior high school students.

## REFERENCES

- Abidin, M. J. Z., Pour-Mohammadi, M., & Alzwari, H. (2012). EFL students' attitudes towards learning English language: The case of Libyan secondary school students. *Asian social science*, 8(2), 119.
- Ashby, J. S., Rice, K. G., & Kutchins, C. B. (2008). Matches and mismatches: Partners, perfectionism, and premarital adjustment. *Journal of Counseling Psychology*, 55, 125-132. doi:10.1037/0022-0167.55.1.125
- Ashby, J., & Kottman, T. (1996). Inferiority as a distinction between normal and neurotic perfectionism. *Individual Psychology*, 52, 237-245. Retrieved from: [ezproxy.gsu.edu](http://ezproxy.gsu.edu)
- Aydin, Selami. (2008). An investigation on the language anxiety and fear of negative evaluation among Turkish EFL Learners. *Asian EFL Journal*. 30. 421—444.
- Ayoobiyan, H., & Soleimani, T. (2015). The relationship between self-efficacy and language proficiency: A case of Iranian medical students. *Journal of Applied Linguistics and Language Research*, 2(4), 158-167.
- Bandura, A., & Locke, E. A. (2003). Negative self-efficacy and goal effects revisited. *Journal of applied psychology*, 88(1), 87.
- Britner, S. L., & Pajares, F. (2006). Sources of science self-efficacy beliefs of middle school students. *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching*, 43(5), 485-499.

- Castro-Fornieles, J., Gual, P., Lahortiga, F., Gila, A., Casulà, V., Fuhrmann, C., & ... Toro, J. (2007). Self-oriented perfectionism in eating disorders. *International Journal of Eating Disorders*, 40(6), 562-568. doi:10.1002/eat.2039
- Caprara, G. V., Fida, R., Vecchione, M., Del Bove, G., Vecchio, G. M., Barbaranelli, C., & Bandura, A. (2008). Longitudinal analysis of the role of perceived self-efficacy for self-regulated learning in academic continuance and achievement. *Journal of educational psychology*, 100(3), 525.
- Dörnyei, Z. (2001). New themes and approaches in second language motivation research. *Annual review of applied linguistics*, 21, 43-59.
- Enns, M. W., Cox, B. J., & Clara, I. (2002). Adaptive and maladaptive perfectionism: Developmental origins and association with depression proneness. *Personality and individual differences*, 33(6), 921-935.
- Ersanlı, C. Y. (2015). The relationship between students' academic self-efficacy and language learning motivation: A study of 8th graders. *Procedia-Social and Behavioral Sciences*, 199, 472-478.
- Haldar, S. K. (2018). *Mineral exploration: principles and applications*. Elsevier.
- Kitano, K. (2001). Anxiety in the college Japanese language classroom. *The Modern Language Journal*, 85(4), 549-566.
- Pastorelli, C., Caprara, G. V., Barbaranelli, C., Rola, J., Rozsa, S., & Bandura, A. (2001). The structure of children's perceived self-efficacy: A cross-national study. *European Journal of Psychological Assessment*, 17(2), 87.
- Scovel, T. (2000). A critical review of the critical period research. *Annual review of applied linguistics*, 20, 213-223.
- Sporer, S. L., Penrod, S., Read, D., & Cutler, B. (1995). Choosing, confidence, and accuracy: A meta-analysis of the confidence-accuracy relation in eyewitness identification studies. *Psychological Bulletin*, 118(3), 315.
- Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches, evidence, challenges. *Personality and Social Psychology Review*, 10, 295-319.
- Stoeber, J., & Otto, K. (2006). Positive conceptions of perfectionism: Approaches, evidence, challenges. *Personality & Social Psychology Review* (Lawrence Erlbaum Associates), 10(4). doi:10.1207/s15327957pspr1004\_21.
- Stoltz, K., & Ashby, J. S. (2007). Perfectionism and lifestyle: Personality differences among adaptive perfectionists, maladaptive perfectionists, and nonperfectionists. *Journal of Individual Psychology*, 63(4). Retrieved from <http://www.utexas.edu/utpress/journals/jip.html>

- Taylor, D. O., Edwards, L. B., Boucek, M. M., Trulock, E. P., Deng, M. C., Keck, B. M., & Hertz, M. I. (2005). Registry of the International Society for Heart and Lung Transplantation: twenty-second official adult heart transplant report—2005. *The Journal of heart and lung transplantation*, 24(8), 945-955.
- Urduan, T., & Pajares, F. (Eds.). (2006). *Self-efficacy beliefs of adolescents*. IAP.
- Yang, Z., Jackson, T., Gao, X., & Chen, H. (2012). Identifying selective visual attention biases related to fear of pain by tracking eye movements within a dot-probe paradigm. *Pain*, 153(8), 1742-1748.v

## Basic Psychological Needs and Behavioral Regulation in Exercise as Predictors of Physical Activity Engagement of the Senior High School Students

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### ABSTRACT

The goal of this descriptive-correlational study was to determine the influence of basic psychological needs and behavioral regulation in exercise on the physical activity engagement of senior high school students in selected public senior high schools in Cluster Six – Division of Davao City. Three instruments were used and adapted to determine the levels of basic psychological needs, behavioral regulation in exercise, and physical activity engagement of senior high school students. Data gathered was then analyzed and interpreted. The results revealed that senior high school students have a high level of basic psychological needs. On the other hand, behavioral regulation in exercise and physical activity engagement were both at moderate levels. It was also found that basic psychological needs and behavioral regulation in exercise have a significant relationship to the physical activity engagement of senior high school students. Further, the result also showed that basic psychological needs and behavioral regulation in exercise predicts physical activity engagement of senior high school students.

**KEYWORDS:** Education, basic psychological needs, behavioral regulation in exercise, physical activity engagement, descriptive-correlational, senior high school students, Philippines

### INTRODUCTION

As the world faces an unprecedented challenge that changes people's lifestyles, doing physical activities at home is the least priority (Kaur et al., 2020). In a November 2020 report of the World Health Organization (WHO), it was highlighted that 80 percent of adolescents worldwide are physically inactive. This has also been found in a study conducted by Guo et al. (2021) which indicated that school closures in China have negatively affected the physical activity participation of students. Further, the study found that 58.7 percent of the participants reported a decrease in physical activity engagement compared with the time before lockdowns were implemented. In the United States of America (USA), the Centers for Disease Control and Prevention (CDC) reported that only 24 percent of students aged 6 to 17 years old perform and engage in a 60-minute physical activity every day.

Moreover, the Global School-based Student Health Survey (GSHS) conducted in 2015 by the Department of Health (DOH) Philippines and the World Health Organization (WHO) found that 12.1 percent of male and 11.6 percent of female

students aged 13 to 17 years of age were physically active. Another study of Quismundo et al. (2019) which has participants from the Davao Region showed that 62.5 percent of the participants were physically inactive. In addition, Quismundo et al. (2019) also found that participants 18-65 years of age have work that does not involve moderate-to-vigorous physical activity.

The Philippines has also suffered from insufficient physical activities among Filipinos. According to Guthold et al. (2018), as cited by Pituk et al., (2019), the Philippines reported that 30 percent of males and 50 percent of females have insufficient physical activity. In addition, the result of the Sun Life Financial Asia Health Index which was reported by Dumlao-Abadilla (2017), showed that Filipinos are among the highest percentage of Asians who lack regular exercise. The reason behind this behavior is the insufficient time, insufficient personal motivation, and other activities that Filipinos do that may take their attention to exercise (Dumlao-Abadilla, 2017).

The study of Weman-Josefsson et al. (2015) explored the relationship between basic psychological needs, motivational regulations, and exercise behavior among Swedish adults aged between 18 to 78 years old, who were participants in an internet-based exercise program. The study utilized structural equation model in examining the relationship between basic psychological needs, motivational regulations, and exercise. Further, the study also examined the mediational role by behavioral regulation between basic psychological needs and exercise behavior. The findings of the study showed that when basic psychological needs are highly satisfied, need satisfaction predicted autonomous regulation. Autonomous regulation then predicted the participants' behavioral outcomes in terms of exercise and physical activity. The study concluded that autonomous behavioral regulation was found to be a mediating variable between basic psychological needs and exercise behavior.

Another study conducted by Kirkland et al. (2011) which explored the relationship between psychological need, motivation, and exercise among older adults, ages ranging from 56 to 95 years old, found that the satisfaction of the psychological needs leads to the desired exercise adherence. The study explored the relationship between psychological needs and exercise in older adults. In addition, significant differences in intrinsic and self-determined extrinsic regulation were explored. The study utilized t-test and Cohen's *d* to test the effects of exercisers against non-exercisers in terms of behavioral regulation and basic psychological needs satisfaction of the participants. The study pointed out that professionals in the field of exercise should consider enhancing autonomy, competence, and relatedness among older adults to increase participation and engagement to exercise and physical activity.

Consequently, in a study conducted by Martinez et al. (2013), it was found that among the three psychological needs; autonomy, competence, and relatedness only competence predicted exercise participation among students of Texas State University. The findings also extended to the moderating role of gender to exercise participation. It was found that satisfaction of the need for competence among women predicted exercise participation, but not in men.

In the studies of Weman-Josefsson et al. (2015), Kirkland et al. (2011), and Martinez et al. (2013) which the researcher came across, all of the three studies had respondents and participants that were either University students or older adults. Moreover, the researcher had not come across a study that explored the combined influence of basic psychological needs and behavioral regulation in exercise to the physical activity engagement of students. In addition, the researcher had not come across any study that had senior high school students as participants. Further, the

researcher had also not come across any study that involves basic psychological needs, behavioral regulation in exercise, and physical activity that have respondents who were students within Davao City.

It is on this identified method, location, and group gaps in research that the researcher felt the need of urgency to conduct this study. Understanding the combined influence of basic psychological needs and behavioral regulation in exercise on the physical activity engagement of senior high school students could be of importance to the educational leaders in crafting the curriculum that would best understand the needs and motivations of students for them to be physically active. Further, identifying which among the basic psychological needs and behavioral regulation in exercise strongly predicts physical activity among senior high school students could be an important factor in crafting physical education teachers' approach to physical activity among students in times of pandemic.

## **Theoretical Framework**

This study is anchored on the **Self-Determination Theory by Deci and Ryan (1985)**. According to Self-Determination Theory (SDT), an individual's motivation, whether intrinsic or extrinsic, is driven by the fulfillment of three basic psychological needs: autonomy, competence, and relatedness. (Kirkland et al., 2011). This suggests that as the individual's psychological needs are satisfied, the individual tends to be intrinsically motivated and thus perform optimally to a task. In the context of physical activity, students who feel competent, have a sense of autonomy, and are relatable to others, are intrinsically motivated to do exercise on their own and engage in such activities even without external rewards or recognition. In addition, according to self-determination, the degree to which a person is motivated varies (Edmunds et al., 2006). A person's motivation may be autonomous or controlled. This variation in human motivation is reflected in a continuum of motivations (Ryan & Deci, 2000; Hagger, 2008; Legault, 2017; Kirkland et al., 2011; Edmunds et al., 2006). The left-most side of the self-determination continuum is amotivation which means a lack of intention to participate. After amotivation, extrinsic motivation follows which has four motivational regulations; extrinsic regulation, introjected regulation, identified regulation, and integrated regulation. On the right-most part of the continuum is intrinsic motivation. In this study, self-determination theory was used to explore the relationship of basic psychological needs, behavioral regulation in exercise, and physical activity engagement of senior high school students. Further, the theory was also utilized in determining the influence of basic psychological needs and behavioral regulation in exercise to physical activity engagement of senior high school students.

## **METHODS**

### **Research Design**

This study is a quantitative research that utilized the descriptive correlational design. According to Watson (2015), quantitative research uses statistical or numerical data in order to understand the underlying reason for certain phenomena through a scientific process. Hence, the phenomenon being studied is assumed to be measurable and quantifiable (Watson, 2015). A descriptive research design was utilized in this

study. According to Koh et al., (2000), the descriptive research design is anchored on the assumption that phenomena and issues can be answered through observation, analysis, and description. Hence, in this study, the descriptive research design was used to determine the levels of the different domains of basic psychological needs, behavioral regulation in exercise, and physical activity engagement of senior high school students. Also, this research design was used to describe the level of these domains and variables.

A correlational research design was used in this study to determine the relationship between basic psychological needs, behavioral regulation in exercise, and physical activity engagement of senior high school students. According to Creswell (2014), a correlational research design is a quantitative research method used to describe and measure the degree of relationship or association between two more variables. Descriptive-correlational research design was the appropriate research design for this study. This study involved collecting quantitative data using a Likert scale survey questionnaire. The data gathered were analyzed using different statistical tools which enabled the researcher to describe the levels of students' basic psychological needs, behavioral regulation in exercise, and physical activity engagement.

### **Place of the Study**

The study was conducted in Davao City, a city in Region XI, Philippines. The researcher purposively chose students of the Cluster 6 – Division of Davao City. These schools are considered to be large schools with a population of senior high school students ranging from 402 to 1,368. These schools have provided a considerably large population size for data gathering. Further, these schools offer academic and technical-vocational strand. Three schools were chosen to be part of the study which were referred to as school A, school B, and school C. These schools should offer both junior high school and senior high school. Another criterion is that these schools should be considered big schools, that is the population of enrolled senior high school students should be at least 150. Lastly, these schools should offer physical education classes, whether modular, online or blended learning for grades 11 and 12.

### **Respondents**

The respondents of this study were the 193 senior high school students who were chosen from the selected three public schools in Cluster 6 Davao City using cluster sampling. The researcher used the Raosoft calculator and was set at 95 percent confidence level, seven percent margin of error, and 90 percent response distribution with the following results: School A = 61 out of 402; School B = 64 out of 595; and School C = 68 out of 1,368. In selecting the 193 respondents from three schools, cluster sampling was used. According to Creswell (2014), cluster sampling is suitable when compiling a list of the elements that make up the population is difficult or impracticable. In this study, the clusters were the different sections of grades 11 and 12 from three schools. After the sections are identified, sections were assigned with numbers starting from 1. Then, to identify the section that participated in the study, random numbers representing a specific section were generated using an online random number generator.

## Statistical tools

The researcher used the following statistical tools for data analysis: **Mean**, was used to determine the level of basic psychological needs, behavioral regulation in exercise, and physical activity engagement of senior high school students. **Standard Deviation** was used to determine how disperse the data were from the mean. **Pearson Correlation Coefficient** was used to measure the strength of linear relationships that exist between two variables. The researcher used Pearson-r to measure the relationship among basic psychological needs, behavioral regulation in exercise, and physical activity engagement. **Regression Analysis** was used to determine the significance of the influence of basic psychological needs and behavioral regulation in exercise to the physical activity engagement of senior high school students.

## RESULTS AND DISCUSSION

### Level of Basic Psychological Needs of Senior High School Students

Table 1 shows the level of the basic psychological needs of senior high school students. It shows that the overall mean level of basic psychological needs is 3.90 described as high. It means that the basic psychological needs of senior high school students are often manifested. In addition, the overall standard deviation is .71 which is less than one denoting that the respondents have ratings that are practically almost the same.

**Table 1**  
*Level of Basic Psychological Needs of Senior High School Students*

	Mean	SD	Description
Autonomy	4.07	.76	High
Competence	3.78	.85	High
Relatedness	3.84	.95	High
<b>Overall Mean</b>	<b>3.90</b>	<b>.71</b>	<b>High</b>

This result implies that basic psychological needs of senior high school students were met. This further means that the respondents of this study were highly autonomous in engaging themselves in physical activity. Respondents also felt highly competent in performing physical activities. Moreover, senior high school students have also established a relationship with their companions as they engage in physical activity. This finding supports the view of Ryan and Deci (2018), which argue that basic psychological needs are crucial in a person's growth in terms of how he or she sees and interacts with his or her surroundings. As a result, satisfying these psychological needs is critical to a person's growth.

Specifically, examining the autonomy dimension which has the highest mean among all indicators, 4.07 described as high which means that this particular

dimension is oftentimes manifested. The mean ratings of the items ranged from 3.97 to 4.16. This finding supports the notion that a person who actively engages in exercise or physical activity is autonomously motivated. Furthermore, when the desire for autonomy is met, a person is self-directed to engage in an activity that is not easy and may cause discomfort during the execution of various exercise motions. This finding is in consonance with the study of Davies et al. (2016) which found that autonomy was a significant and positive predictor of autonomous regulation toward CrossFit involvement. According to Ryan and Deci (2018), when a person acts with autonomy, activities are performed fully. This also means that when a person's demand for autonomy is met, he or she engages in physical activity willingly.

Also, the result shows that competence with the lowest mean among indicators, 3.78 described as high which means, it is oftentimes manifested. The item mean ratings range from 3.58 to 4.03. Di Battista et al. (2018) discovered that satisfying the need for competence of the students played a beneficial influence on high school students' desire to engage in leisure-time physical exercise. It was also discovered that students' inclination to engage in leisure-time physical exercise is highly influenced by their need for competence.

### **Level of Behavioral Regulation in Exercise of Senior High School Students**

Table 2 shows the level of behavioral regulation in exercise of senior high school students. The overall mean of the behavioral regulation in exercise is 3.13 described as moderate. It means that the behavioral regulation in exercise of senior high school students is sometimes evident. The overall standard deviation of .59 indicates a negligible variation of responses among students. The moderate level of behavioral regulation in exercise of senior high school students affirms the systematic review conducted by Teixeira et al. (2012). It was found that different studies which examined behavioral regulation in exercise and physical activity showed consistent findings that identified and intrinsic behavioral regulations were positively correlated with exercise behavior.

**Table 2**

#### *Level of Behavioral Regulation in Exercise of Senior High School Students*

	<b>Mean</b>	<b>SD</b>	<b>Description</b>
Amotivation	2.24	1.03	Low
External Regulation	2.40	1.05	Low
Introjected Regulation	3.00	1.12	Moderate
Identified Regulation	4.05	.82	High
Intrinsic Regulation	3.96	.91	High
<b>Overall Mean</b>	<b>3.13</b>	<b>.59</b>	<b>Moderate</b>

The highest dimension is on identified regulation which has a category mean of 4.05 described as high which means, it is oftentimes evident. Adding on, the mean ratings of the items in this dimension are ranging from 3.47 to 4.30. The result implies that senior high school students engage in physical activity because they value the benefits that they may obtain in participating in such activities. These findings support Brunet et al., (2011) claim that respondents to their study's survey indicated a high degree of identified regulation. This implies that people engage physical activity because their values, goals, and desires fit with their own and because it is inherently enjoyable. While the lowest dimension is amotivation which has a mean of 2.24 described as low which means that amotivation of senior high school students is rarely evident. The items in this category range from 1.93 to 2.49. This finding is in consonance with the study of Weman-Josefsson et al. (2015) which found that amotivation is negatively correlated with moderate and strenuous exercise intensity. This means that a low level of amotivation means a high level of exercise intensity. This further implies that in order to engage in a workout, an activity that costs time and energy and puts the individual in an unpleasant situation, a person must be more intrinsically motivated.

### Level of Physical Activity Engagement of Senior High School Students

Table 3 shows the level of physical activity engagement of senior high school students which recorded an overall mean of 3.14, described as moderate. This means that the level of physical activity engagement of senior high school students is sometimes observed. The standard deviation is .88 which is less than one denoting that the respondents have ratings that are practically almost the same. The moderate level of physical activity engagement of senior high school students suggests that students are only occasionally engaged in doing physical activities. This result confirms the World Health Organization's findings that there is a trend of adolescents' insufficient physical activity participation (WHO, 2019). The results clearly indicate that our adolescents occasionally engage in physical activity.

**Table 3**

*Level of Physical Activity Engagement of Senior High School Students*

	Mean	SD	Description
Physical Activity During Spare Time	2.93	0.92	Moderate
Sports, Dance, or Play Game During Evening	3.16	1.16	Moderate
Sports, Dance, or Play Game During Last Weekend.	3.24	1.10	Moderate
Describes Best for the Last 7 Days	3.24	1.15	Moderate
<b>Overall Mean</b>	<b>3.14</b>	<b>.88</b>	<b>Moderate</b>

The indicator which has the highest mean is Sports, Dance, or Play Game During Last Weekend. The category mean of sports, dance, or play game during last weekend among senior high school students shows a mean of 3.24 described as moderate which means that is sometimes observed. This implies that senior high school students

occasionally spent their time during weekends in performing and participating in different kinds of physical activities. The result above is in consonance with the findings of Esto (2021). The study found that students are moderately engaged in physical activities during Saturdays and Sundays. It was further discovered that boys were more engaged in physical activities during weekends than girls. Another indicator that has the highest mean is Describes Best for the Last 7 Days. In terms of the physical activity level of senior high school students that best describes them for the last seven days reflects a mean of 3.24 described as moderate which means that it is sometimes observed. The mean ratings range from 3.09 to 4.15. The result implies that senior high school students engage in physical activity on occasion for the last seven days. This finding supports the study of Nader et al. (2008), which studied moderate-to-vigorous physical activity engagement of participants aged 9 to 15 years old using a belt to monitor participants’ activities for 7 days. The study revealed that children’s moderate-to-vigorous physical activity for the last 7 days declined as they became adolescents. The study found that generally 9-year-old children met the required 60 minutes of recommended physical activity engagement for weekdays and weekends while only 31 percent of 15-year-olds met the 60-minute recommended moderate-to-vigorous physical activity engagement during weekdays and only 17 percent on weekends.

**Correlation between Variables**

Table 4 shows the relationships between basic psychological needs, behavioral regulation in exercise, and physical activity engagement of senior high school students. It shows that the basic psychological needs has a significant positive relationship with the physical activity engagement of senior high school students with a p-value of .00 which is less than a .05 level of significance (two-tailed) ( $r = .45, p < .05$ ). It means that as the level of basic psychological needs increases, the physical activity engagement of senior high school students also significantly increases.

**Table 4**  
*Significance of the Relationships of Basic Psychological Needs, Behavioral Regulation in Exercise and Physical Activity Engagement of Senior High School Students*

	Physical Activity Engagement		
	R	p-value	Remarks
Basic Psychological Needs	.45**	.00	Significant
Behavioral Regulation in Exercise	.34**	.00	Significant

\*\* . Correlation is significant at the 0.01 level (2-tailed)

Similarly, the result shows that the relationship between behavioral regulation in exercise and physical activity engagement of senior high school students is significant, and positive with a p-value of .00 that is greater than the alpha set at .05 ( $r = .34, p < .05$ ). This means that if the level of behavioral regulation in exercise increases,

the physical activity engagement of the senior high school students also significantly increases. The findings are consistent with those of González et al. (2014), who discovered a significant and strong relationship between basic psychological needs and physical activity. Furthermore, a study conducted by Davies et al. (2016) among CrossFit participants found a link between basic psychological needs and CrossFit involvement, which is also a kind of physical exercise.

The findings of the relationship between behavioral regulation in exercise and physical activity engagement of senior high school students were in line with the study conducted by Sibley et al. (2013) on undergraduate university students aged 18 to 31 years old. The study discovered a link between beneficial exercise results and intrinsic regulation, which is a more self-determined behavioral regulation in exercise. This was also the conclusion of research done by Vancampfort et al. (2013) on physical exercise in schizophrenia patients. Total physical activity, walking, moderate physical activity, and intense physical activity are all positively connected with autonomous behavioral regulation, which is made up of identified and intrinsic regulation.

### Influencers of Physical Activity Engagement of Senior High School Students

Table 5 shows the results of the multiple regression analysis. In singular capacity, basic psychological needs significantly predict the physical activity engagement of senior high school students with a p-value that is less than zero at a .05 level of significance (2-tailed) ( $p > .05$ ) with a positive standardized beta value of .364. It means that for every unit increase in the value of the basic psychological needs of the senior high school students, there is a corresponding increase of .364 in their physical activity engagement.

**Table 5**  
*Significance of the Influence of Basic Psychological Needs and Behavioral Regulation in Exercise Towards Physical Activity Engagement of Senior High School Students*

		Physical Activity			
		Standardized	t	p-value	Remarks
		Coefficients			
<b>Basic Psychological Needs</b>		.364	5.21	.000	Significant
<b>Behavioral Regulation in Exercise</b>		.183	2.62	.000	Significant
R	.475				
R <sup>2</sup>	.226				
F	28.71				
P	.000				

Likewise, in singular capacity, the behavioral regulation in exercise of senior high school students significantly predicts their physical activity engagement with a p-value that is less than the .05 level of significance (2-tailed) ( $p < .05$ ) with a positive standardized beta value of .183. It means that for every unit increase in the value

of the behavioral regulation in exercise, there is a corresponding increase of .183 in the physical activity engagement of the senior high school students. Importantly, the combined influence of the two independent variables, basic psychological needs, and behavioral regulation in exercise as predictors of physical activity engagement of the senior high school students is significant ( $F = 28.71, p < .05$ ). Meanwhile, the model explains that 23 percent of the variance of the physical activity engagement of the senior high school students was explained by the independent variables explored in this study as indicated by  $R^2 = .226$ . This means that 77 percent of the variance of the physical activity engagement of the senior high school students can be attributed to other factors aside from basic psychological needs and behavioral regulation in exercise.

The findings of this study support Ryan et al., (1985) Self-Determination Theory, which states that autonomous motivation, which is identified regulation and intrinsic regulation (Sabire et al., 2008; Weman-Josefsson et al., 2015), controlled motivation, which is external regulation and introjected regulation (Sabire et al., 2008; Weman-Josefsson et al., 2015), and a motivation as predictors of performance, interpersonal relationships, and well-being outcomes. Further, the satisfaction of three basic psychological needs: autonomy, competence, and relatedness, according to Self-Determination Theory (SDT), drives an individual's motivation, whether intrinsic or extrinsic. (Kirland et al., 2011). This argues that when an individual's psychological needs are met, he or she becomes naturally driven and performs best. In the context of physical activity, students who feel competent, have a feeling of autonomy, and are relevant to others are naturally driven to exercise on their own and engage in such activities even if they do not receive external incentives or recognition.

## CONCLUSIONS

Based on the findings, the following conclusions were drawn; the level of basic psychological needs of senior high school students is oftentimes manifested. This finding connotes that autonomy, competence, and relatedness are oftentimes manifested. This implies that senior high school students engaged in physical activities the way they wanted to. On the other hand, identified regulation and intrinsic regulation are oftentimes evident. The level of physical activity engagement of senior high school students is sometimes observed. This means that students' physical activity during spare time, their sports, dance, or play games during evening and on weekends, and their physical activity engagement that describes them best for the last seven days are sometimes observed. It is also noteworthy that senior high school students engage in walking as a form of exercise. Both basic psychological needs and behavioral regulation in exercise have significant positive relationships with students' physical activity engagement. This means that as the level of basic psychological needs increases, students' physical activity engagement also increases significantly. Also, an increase in the level of behavioral regulation in exercise, means a significant increase in students' physical activity. Basic psychological needs significantly predict the physical activity engagement of senior high school students. Moreover, an increase in basic psychological needs will result in an increase in physical activity engagement of senior high school students. In addition, behavioral regulation in exercise also predicts the physical activity engagement of senior high school students. The combined influence of basic psychological needs and behavioral regulation in exercise

influence physical activity engagement of senior high school students was significant. In addition, basic psychological needs and behavioral regulation in exercise only explains a portion of the variance of the physical activity engagement of the senior high school students. This means that there is a substantial amount of variance of the physical activity engagement of the senior high school students that can be attributed to other factors aside from basic psychological needs and behavioral regulation in exercise.

## REFERENCES

- Brunet, J., & Sabiston, C. M. (2011). Exploring motivation for physical activity across the adult lifespan. *Psychology of Sport and Exercise*, 12(2), 99–105. <https://doi.org/10.1016/j.psychsport.2010.09.006>.
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches*. SAGE.
- Davies, M. J., Coleman, L., & Babkes Stellino, M. (2016). The relationship between basic psychological need satisfaction, behavioral regulation, and Participation in CrossFit. *Journal of Sport Behavior*, 39(3), 239–254.
- Di Battista, R., Robazza, C., Ruiz, M. C., Bertollo, M., Vitali, F., & Bortoli, L. (2018). Student intention to engage in leisure-time physical activity. *European Physical Education Review*, 1356336X1877066. <https://doi.org/10.1177/1356336x18770665>.
- Dumlao-Abadilla, D. (2017, January 21). Most Filipinos lack exercise – study. *INQUIRER.Net*. <https://business.inquirer.net/223197/filipinos-lack-exercise#>.
- Edmunds, J., Ntoumanis, N., & Duda, J. L. (2006). A Test of Self-Determination Theory in the Exercise Domain. *Journal of Applied Social Psychology*, 36(9), 2240–2265. <https://doi.org/10.1111/j.0021-9029.2006.00102.x>.
- Esto, J. B., & Poralan, P. S. (2021). Understanding personality traits of students and their physical activity engagement: A convergent design. *International Journal of Physical Education, Sports and Health*, 8(4), 342–354. <https://doi.org/10.22271/kheljournal.2021.v8.i4f.2203>.
- Guo, Y. et al. (2021). Physical activity, screen exposure and sleep among students during the pandemic of COVID-19. *Scientific Reports*, 11(1). <https://doi.org/10.1038/s41598-021-88071-4>.
- Guthold, R., Stevens, G. A., Riley, L. M., & Bull, F. C. (2018). Worldwide trends in insufficient physical activity from 2001 to 2016: a pooled analysis of 358 population-based surveys with 1·9 million participants. *The Lancet Global Health*. [https://doi.org/10.1016/s2214-109x\(18\)30357-7](https://doi.org/10.1016/s2214-109x(18)30357-7).

- Kaur, H., Singh, T., Arya, Y. K., & Mittal, S. (2020). Physical Fitness and Exercise During the COVID-19 Pandemic: A Qualitative Enquiry. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.590172>.
- Kirkland, R. A., Karlin, N. J., Stellino, M. B., & Pulos, S. (2011). Basic Psychological Needs Satisfaction, Motivation, and Exercise in Older Adults. *Activities, Adaptation & Aging*, 35(3), 181–196. <https://doi.org/10.1080/01924788.2011.596764>.
- Koh, E. T., & Owen, W. L. (2000). Descriptive Research and Qualitative Research. *Introduction to Nutrition and Health Research*, 219–248. [https://doi.org/10.1007/978-1-4615-1401-5\\_12](https://doi.org/10.1007/978-1-4615-1401-5_12).
- Martinez, J., Oberle, C. & Nagurney, A. (2013). Basic Psychological Needs in Predicting Exercise Participation. *Advances in Physical Education*, 3, 20-27. <https://doi.org/10.4236/ape.2013.31004>.
- Nader, P. R., Bradley, R. H., Houts, R. M., McRitchie, S. L., & O'Brien, M. (2008). Moderate-to-Vigorous Physical Activity from Ages 9 to 15 Years. *JAMA*, 300(3), 295. <https://doi.org/10.1001/jama.300.3.295>.
- Pituk, C. S., & Cagas, J. (2019). Physical Activity and Physical Fitness among Filipino University Students. *Journal of Physical Education*, 30(1), e-3076. <https://doi.org/10.4025/jphyseduc.v30i1.3076>.
- Ryan, R. M., & Deci, E. L. (2002). Overview of self-determination theory: An organismic-dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 3–33). University of Rochester Press.
- Ryan, R., & Deci, E. (2018). *Self-determination theory: Basic psychological needs in motivation, development and wellness*. The Guilford Press. Retrieved September 11, 2021, from <https://books.google.com.ph>
- Sebire, S. J., Standage, M., & Vansteenkiste, M. (2008). Development and Validation of the Goal Content for Exercise Questionnaire. *Journal of Sport and Exercise Psychology*, 30(4), 353– 377. <https://doi.org/10.1123/jsep.30.4.353>
- Sibley, B. A., Hancock, L., & Bergman, S. M. (2013). University Students' Exercise Behavioral Regulation, Motives, and Physical Fitness. *Perceptual and Motor Skills*, 116(1), 322–339. <https://doi.org/10.2466/06.10.pms.116.1.322-339>
- Teixeira, P. J., Carraça, E. V., Markland, D., Silva, M. N., & Ryan, R. M. (2012). Exercise, physical activity, and self-determination theory: A systematic review. *International Journal of Behavioral Nutrition and Physical Activity*, 9(1), 78. <https://doi.org/10.1186/1479-5868-9-78>

- Watson, A., Elliott, J., & Mehta, K. (2015). Perceived barriers and facilitators to participation in physical activity during the school lunch break for girls aged 12–13 years. *European Physical Education Review*, 21(2), 257–271. <https://doi.org/10.1177/1356336x14567545>
- Weman-Josefsson, K., Lindwall, M., & Ivarsson, A. (2015). Need satisfaction, motivational regulations and exercise: Moderation and mediation effects. *International Journal of Behavioral Nutrition and Physical Activity*, 12(1). <https://doi.org/10.1186/s12966-015-0226-0>
- Watson, A., Elliott, J., & Mehta, K. (2015). Perceived barriers and facilitators to participation in physical activity during the school lunch break for girls aged 12–13 years. *European Physical Education Review*, 21(2), 257–271. <https://doi.org/10.1177/1356336x14567545>
- Weman-Josefsson, K., Lindwall, M., & Ivarsson, A. (2015). Need satisfaction, motivational regulations and exercise: Moderation and mediation effects. *International Journal of Behavioral Nutrition and Physical Activity*, 12(1). <https://doi.org/10.1186/s12966-015-0226-0>
- World Health Organization. (2015). World Health Organization. Retrieved April 29, 2022, from <https://extranet.who.int/ncdsmicrodata/index.php/catalog/660/study-description?fbclid=IwAR1S7ypWvGWLy5LzoyfdAJOWJkjk000DIQRVXrkoyPdyYz7SIIdRZ>
- World Health Organization. (2019). New who-led study says majority of adolescents worldwide are not sufficiently physically active. World Health Organization. Retrieved April 29, 2022, from <https://www.who.int/news/item/22-11-2019-new-who-led-study-says-majority-of-adolescents-worldwide-are-not-sufficiently-physically-active-putting-their-current-and-future-health-at-risk>.
- World Health Organization. (2020). Physical activity. World Health Organization. Retrieved April 29, 2022, from [https://www.who.int/news-room/fact-sheets/detail/physical-activity?fbclid=IwAR350Ri\\_bC\\_NSP2y7MBtUY9WE3t33cy\\_J1BRS\\_tb3BcAyEt\\_FIOsZSKv1Vs](https://www.who.int/news-room/fact-sheets/detail/physical-activity?fbclid=IwAR350Ri_bC_NSP2y7MBtUY9WE3t33cy_J1BRS_tb3BcAyEt_FIOsZSKv1Vs)
- Williams, G. C., McGregor, H. A., Zeldman, A., Freedman, Z. R., & Deci, E. L. (2004). Testing a self-determination theory process model for promoting glycemic control through diabetes self-management. Health psychology: official journal of the Division of Health Psychology, *American Psychological Association*, 23(1), 58–66. <https://doi.org/10.1037/0278-6133.23.1.58>



# Characteristics and Public Speaking Class Anxiety of the Senior High School

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## ABSTRACT

The current study aimed to investigate the relationship between the profile of the respondents and public speaking class anxiety. Such data became the basis for formulating an action plan to help remediate such a problem. Utilizing descriptive-correlational research design, the study determined the characteristics and level of public speaking anxiety of two hundred thirty-five (235) Grade 11 students from selected private secondary schools in Davao City who were selected through a stratified random sampling technique. The study used the Public Speaking Class Anxiety Scale (PSCAS) to measure the student's ability to communicate using the target language and the level of anxiety one learner has experienced and adopted the Big Five Personality Test (BFPT) questionnaire to identify the personality traits. The results of the study showed an average level of public speaking with an overall mean of 3.00, describing that senior high school students sometimes experienced public speaking anxiety. The level of PSCA, when grouped according to profile, was found to have no significant difference. Given the results, an extensive training workshop for Senior High School students is proposed to enhance speaking skills and avoid public speaking classroom anxiety.

**KEYWORDS:** Education, English, public speaking, quantitative, descriptive-correlational, Davao City, Philippines.

## INTRODUCTION

Oral fluency has been regarded as a prerequisite for the success of communication, and one of its key enablers is comfort in using the language (Bastida et al., 2019). Nevertheless, in actual learning contexts, it has been found that students refrain from speaking, especially in public, due to fear and anxiety when asked to communicate using English as a medium (Shameem Rafik-Galea et al., 2006). As a result, their involvement may be severely handicapped in classes because they do not ask questions, give feedback, or participate in class discussions. This poses a severe problem since these students do not attempt to contribute to the classroom discussion of information to meet their specific needs.

In Pakistan, it was found that 75% of the students have anxiety in public speaking, affecting their school performance (Raja, 2017). This was evident in the study of Hasibuan et al., (2020), who found that the speaking anxiety of seventy-eight first-year students in Palembang, Indonesia, negatively affected their oral language performance. Hence, it was concluded that fear and nervousness formed by speaking

anxiety were correlated to speaking performance. Similarly, such is the case in Bandar Lampung, where results of a study revealed that students with lower-level anxiety performed better in speaking performance than those with a higher level of anxiety (Sutarsyah, 2017).

In the Philippines, although there have been implemented English curricula at all levels of education that prepare Filipino students to cope with communication challenges, there is a weak application of measures that address the problems faced by the students in classroom communication, one of which is in public speaking (Sardegna, 2017). Nonetheless, Mabuan (2017) commented that despite teachers' efforts to develop students' English public speaking skills, anxiety remains among students who are afraid to express their thoughts openly. It is considerably alarming that Filipino senior high school (SHS) students are still struggling with many issues in oral communication, especially in public speaking. A lack of comfort in communicating with others can inhibit success (Blume, et al., 2013).

Meanwhile, as existent in the researcher's locality, the senior high school students' test performances, especially in Oral Communication subject, show poor results in language from the recent National Achievement Test (Orbeta et al., 2019). Take, for instance, the performance of one of the big schools in the Davao region, Panabo National High School, which obtained only an overall mean rating of 65.02%, which is considerably lower than the standard national passing rate of 75% and above. High school students in Davao Region also need help in academic subjects, especially those that use English as a medium of instruction. The result also correlates with how students consider public speaking in their classroom instruction and the problems posed by public speaking anxiety.

Given the challenges posed by public speaking apprehension due to language, there is a need to address the problem through the aims of this current study. Advancing this study using the descriptive-correlational research method would contribute to studies investigating public speaking class anxiety and help educators improve students' speaking abilities, especially in senior high school who are expected to leap from academic to career opportunities.

Similarly, as the study has generated its results and the significance has been stipulated, the researcher takes the initiative to share the findings to the school level through School Learning Action Cell. Then, the developed action plan will also be presented to the district and division level during research fora. The matrix of activity as presented in the action plan stipulates how the information would be disseminated and give benefits to the people in the academe.

## **Theoretical Framework**

The study employed the Affective Filter hypothesis of Stephen Krashen (1988), which believes that several influential variables play a facilitative, yet non-causal, function in acquiring a second language. Such factors include motivation, self-confidence, anxiety, and personality traits. Krashen also claims that learners with excellent and high motivation, strong self-esteem, and good self-image can lower the possibility of anxiety/depression issues. Most extroverted students are far better equipped for success in acquiring the target language. Poor motivation and self-esteem, anxiety, introversion, and inhibition can go up the number of cases that show the affective filter and form a 'mental block' that prevents comprehensible input from

being used for acquisition. In other words, when the filter is 'up,' it impedes language acquisition (Schütz, 2019). Furthermore, the Affective Filter hypothesis can also be used in second language teaching to analyze students' learning motivation, motivate them, and help them possess a positive attitude and outlook with the subject, boost students' confidence, and lower their language anxiety (Du, 2009).

## **METHODS**

### **Research Design**

The researcher used a quantitative research design, specifically a descriptive-comparative design. Quantitative research is used to examine the relationship between variables and the quantity of the problem by generating numerical data and explaining the phenomenon by way of analyzing it using statistical tools. Moreover, the sole primary purpose of this design is to explain, predict, and control phenomena through a focused collection of numerical data (Gay et al., 2009). Meanwhile, descriptive-comparative design includes multiple variables for analysis; and is used to describe the characteristic of the population or phenomenon being studied. Descriptive research aims to describe, observe, and document. Descriptive research is unique in the number of variables employed. This involves collecting data that will provide an account or description of individuals, groups, or situations (Creswell, 2002). The said designs are fit to use in this study since the objective of this current study is to describe and interpret the current status of the public speaking class anxiety (PSCA) and to compare between and among groups of senior high students from their sex, different sections of each track in the senior high school in the target research locale, the previous schools they graduated from, and their respective personality traits will be investigated and correlated to the level of PSCA.

### **Place of the Study**

The study was conducted in Davao City, the first class highly urbanized city on the island of Mindanao, making it the largest city in the Philippines in terms of land area. The city is home to several schools which offer senior high school education. Davao City, officially the City of Davao, is characterized as a first class. Specifically, in this study, five (5) private schools were covered. Each school has at least 30 respondents to participate in the survey. The commonality of these schools is that they are all private schools that offer both primary and tertiary education. They are all K-12 accredited institutions and provide several strands for Senior High School students: HUMMS, STEM, ABM, and ICT. These academic institutions are appropriate in the study because the researcher herself is an English teacher in one of these schools.

### **Respondents**

The respondents of the study involved one-hundred-fifty (150) Grade 11 students who were enrolled in English subjects in the school year 2020 – 2021 from the chosen private secondary schools inside the City of Davao. Inclusion criteria in selecting the respondents include senior high school students, more specifically Grade 11 students, who were enrolled in Oral Communication subject. This study used stratified random

sampling. This sampling method allows the researcher to divide the population into smaller groups (strata) based on shared characteristics. This method was suitable since several private schools are offering SHSS in Davao City, and the participating schools were chosen to be included in this research. Out of the population of 2000 senior high school students, a target sample was identified through a freeware Raosoft Calculator to compute the number of samples impeccably. Stratified random sampling is a sampling method from a population whereby the population is divided into subgroups, and units are randomly selected. Stratification of target populations is extremely common in survey sampling (Frey, 2015).

### Statistical tools

The following statistical tools was used in treating the gathered data. **Mean**, this was used to determine and give a concise description on the level of public speaking classroom anxiety. **Standard Deviation**, this was used to determine the variation between each data point relative to the mean. T-test, this was used to determine the significant difference in the level of PSCAS of the students when analyzed according to sex. **Analysis of Variance (ANOVA)**, this was used to assess whether PSCAS significantly differ when respondents are grouped according to track/strand, previous school graduated and personality traits.

## RESULTS AND DISCUSSION

### Profile of the Senior High School Students

The data in Table 1 shows the profile of the Senior High School students according to sex, track or strand, type of elementary school they graduated from, and personality traits. Most of the respondents are female, 62.6%. For the track enrolled by these students, out of the 235-sample size, 114 or 48.5 % have taken up the Humanities and Social Sciences (HUMSS).

**Table 1**

*Profile of Senior High School Students*

Profile	Frequency Counts	Percentages
1.1 Sex		
Female	147	62.6
Male	88	37.4
Total	235	100.0
1.2 Academic Strand		
STEM	14	6.0
HUMMS	114	48.5
GAS	86	36.6
ABM	21	8.9
Total	235	100.0
1.3 Type of School for Junior High		
Private	86	36.6
Public	149	63.4
Total	235	100.0

1.4 Personality		
Extroversion	15	6.4
Agreeableness	91	38.7
Conscientiousness	51	21.7
Neuroticism	7	3.0
Openness to Experience	40	17.0
Combination	31	13.2
<b>Total</b>	<b>235</b>	<b>100.0</b>

Eighty-six of these samples are enrolled in General Academic Strand (GAS), while the lowest percentage goes to ABM and STEM with 8.9 % and 6%. These two strands in the academic tracks have the lowest frequency counts because the admission of students has been screened and carefully chosen through a set of standards. Many respondents had completed Junior High School in public schools; 63.4% and 36.6% graduated from private schools during high school.

The personality of the Senior High School students in terms of extroversion, agreeableness, conscientiousness, neuroticism, openness to experience, and combination revealed a highly positive personality among the students. Individual differences in personalities may affect the level of anxiety in foreign language-speaking of learners together with their level of English because cognitive and non-cognitive personal varieties affect the development of knowledge. Agreeableness obtained the highest count of 91 out of 150 or 38.7% among the personality traits. Agreeableness means friendliness, congenial attitude, or being friends with the students, indicating that senior high school students are friendly. At the same time, neuroticism got the lowest mean of 7, or only 3 % of the total population. As the term suggests, neuroticism represents an egoistic attitude.

### Level of Public Speaking Class Anxiety

Presented in Table 2 is the level of public speaking class anxiety of Senior High School students. Three indicators of PSCA are presented in the table with corresponding mean and standard deviation; these indicators include communication apprehension, fear of negative evaluation, and comfort in using the English lingua. All indicators obtained average results. Results show that the overall mean is 3.00, which is average. The mean scores range from 2.94 to 3.12. The average mean score indicates that the SHS students have a moderate PSCA concerning the four indicators. Its standard deviation ranges from .46 to .54, lower than 1. This standard deviation indicated that respondents' consistency of their PSCA concerning the said indicators varies minimally. Public speaking anxiety among young learners varies with the challenges the learners face (Rahmat, 2020). Communication apprehension revealed the highest mean of 3.12, followed by fear of negative evaluation with a mean of 2.97, and discomfort in using the lingua with 2.94.

**Table 2**

*Level of Public Speaking Class Anxiety*

	<b>Mean</b>	<b>SD</b>	<b>Description</b>
Communication Apprehension	3.12	0.53	Average
Fear of Negative Evaluation	2.97	0.46	Average
Discomfort in Using Lengua	2.94	0.54	Average
<b>OVERALL MEAN</b>	<b>3.00</b>	<b>0.42</b>	<b>Average</b>

The domain with the highest mean is communication apprehension. This domain has a mean of 3.12, described as moderate anxiety. The result implies that the feeling of apprehension among students, specifically in communication, means lacking self-confidence while speaking and the feeling of anxiousness and uneasiness while using the language. Senior High School students have communication anxiety indeed. This is supported by De Guzman and Ocampo's findings (2017) that speaking in front of an audience and feeling uneasy shows a lack of self-confidence. Hence, oral communication requires self-confidence and courage to speak up and build a good rapport with people (Wilang, 2018). Meanwhile the domain with the lowest mean is discomfort in using lengua. This domain gains 2.94, interpreted still as an average level of anxiety. The result coincides with De Guzman and Ocampo (2017) who found out that speaking in front of an audience or even the thought of an audience makes the speakers uneasy or anxious. Thus, using the English language makes the students uncomfortable in communication.

**Comparison of the Difference in Public Speaking Class Anxiety based on Profile**

The result of comparing the public speaking class anxiety when respondents are grouped according to profile is presented in Table 3. The data show no significant difference in the public speaking class anxiety of the respondents based on the profile ( $p>05$ ). This result connotes that the learners have the same level of public speaking class anxiety regardless of sex, strand, type of school for junior high school, and personality. The sex of the students, whether male or female, the strands they are currently enrolled in, the type of junior high school they graduated from, and the type of personality has been found insignificant to the students' public speaking anxiety level. This means that every learner is susceptible to anxiety inside the classroom. The public speaking class anxiety experiences may vary, while the use of English in a different setting varies with the kind of challenges, the learners face (Rahmat, 2020).

**Table 3**  
*Comparison of the Difference in Public Speaking Class Anxiety based on Profile*

Profile		n	Mean	p	Remarks
Sex	Female	147	3.03	.73	Not significant
	Male	88	2.96		
Strand	STEM	14	2.90	.74	Not significant
	HUMMS	114	3.00		
	GAS	86	3.02		
	ABM	21	2.96		
Type	Public	149	3.02	.31	Not significant
	Private	86	2.98		
Personality	Extroversion	15	2.99	.10	Not significant
	Agreeableness	91	3.06		
	Conscientiousness	51	3.05		
	Neuroticism	7	2.76		
	Openness to Experience	40	2.88		
	Combination	31	2.95		

**Proposed Action Plan to Address Public Speaking Class**

**Anxiety**

This research illustrates that social anxiety induced in people is directly proportional to the variety of feedback received from the audience. The literature explains that this substantially impacts the confidence of the individuals and translates significantly into their public addresses. It is said that public speaking has many functions, and failure to subject comprehension may lead to public anxiety among young learners. Moreover, according to Oteir et al., (2019), past studies show that anxiety for English language learners never made learning exciting and enjoyable.

Based on the results of the data analysis, several items prove public speaking class anxiety among Senior High School students. As this study established a significant difference in the level of PCSA with the profile of the students, results have shown no significant difference. Hence, the study will focus on improving the public speaking skills of Senior High School students and provide strategic techniques appropriate to the students' level to avoid anxiety in public speaking using English.

Below is the suggested matrix of activity.

ISSUES	SPECIFIC OBJECTIVES	*STRATEGIES	TIME FRAME	SUCCESS INDICATORS
<p><b>PSCA</b> A. Communication Apprehension</p>	<ul style="list-style-type: none"> <li>To eliminate apprehension and improve confidence in communication</li> </ul>	<ol style="list-style-type: none"> <li>Practice being under challenging conversations through role play.</li> <li>Overcome your fears by taking public speaking classes.</li> <li>Ask for feedback from your coworkers.</li> <li>Consider the audience and the purpose of the speech.</li> <li>Practice in front of a mirror or videotape yourself.</li> </ol>	<p>August 2022 – November 2022</p>	<ul style="list-style-type: none"> <li>Active participation to role play activities</li> <li>Delivers speeches memorized and impromptu</li> </ul>
<p>B. Fear of Negative Evaluation</p>	<ul style="list-style-type: none"> <li>To eliminate fear or at least lessen the feeling of fear</li> </ul>	<ol style="list-style-type: none"> <li>Understand Social Anxiety. It's important to see social anxiety for what it really is.</li> <li>Remain Calm.</li> <li>Breathing.</li> <li>Shift Focus.</li> <li>Mindfulness Therapy.</li> <li>Social Anxiety Therapy</li> </ol>	<p>August 2022 – February 2023</p>	<ul style="list-style-type: none"> <li>More steady in speaking during classroom oral participations</li> <li>Delivers speeches memorized and impromptu</li> </ul>

Discomfort in using Lingua	<ul style="list-style-type: none"> <li>Promotes the use of the language to improve comfort</li> </ul>	<ol style="list-style-type: none"> <li>Active listening</li> <li>Accurate Perception</li> </ol>	<ul style="list-style-type: none"> <li>Participate in oral communication classes confidently using the language</li> <li>Delivers speeches memorized and impromptu</li> </ul>
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### CONCLUSIONS

Based on the summary of findings, the following conclusion is made. Agreeableness personality has been detected among the majority of the senior high school students. It means that students manifest personality traits and individual behavioral characteristics that are perceived as kind, sympathetic, cooperative, warm, and considerate. They tend to be more cooperative. Students are moderately anxious in public speaking class. During public speaking classes, they manifest nervousness, uneasiness and in some cases, fearful to participate. There is no sufficient statistical data that will establish the significance of the difference in PSCA. An action plan is developed that would help remediate the problem of public speaking anxiety among senior high school students.

### REFERENCES

Antonio Ocampo, J. (2017). Resetting the international monetary (non) system (p. 304). Oxford University Press

Bastida, E. L., & Yapo, J. R. (2019). Factors contributing to oral communication apprehension among selected senior high school students in Santa Rosa City, Laguna, Philippines. *Asia Pacific Journal of Contemporary Education and Communication Technology*, 5(2), 10-20.

Blume, B. D., Baldwin, T. T., & Ryan, K. C. (2013). Communication apprehension: A barrier to students' leadership, adaptability, and multicultural appreciation. *Academy of Management Learning & Education*, 12(2), 158-172.

Frey, M. C., & Detterman, D. K. (2004). Scholastic assessment or g? The relationship between the scholastic assessment test and general cognitive ability. *Psychological science*

- Gay, P. C. (2009). Complications of noninvasive ventilation in acute care. *Respiratory care*, 54(2), 246-258.
- Mabuan, R. A. (2017). Developing ESL/EFL Learners' Public Speaking Skills Through Pecha Kucha Presentations. *English Review: Journal of English Education*, 6(1), 1-10. Monticon E, M.,
- Ollerenshaw, J. A., & Creswell, J. W. (2002). Narrative research: A comparison of two restorying data analysis approaches. *Qualitative inquiry*, 8(3), 329-347.
- Orbeta, E. D., & Decano, R. S. (2019). Factors associated with students' performance in English in the implementation of spiral progression. PUPIL: International Journal of Teaching, *Education and Learning*, 3(1), 45-70.
- Parrales, G., & Dajely, L. (2022). *Affective filter influencing the development of speaking skills in EFL learners* (Bachelor's thesis, La Libertad: Universidad Estatal Península de Santa Elena, 2022.).
- Rafik-Galea, S. (2010). Anxiety and Academic Reading Performance among Malay ESL Learners. *Journal of Pan-Pacific Association of Applied Linguistics*, 14(2), 41-58.
- Raja, F. (2017). Anxiety level in students of public speaking: Causes and remedies. *Journal of education and educational development*, 4(1).
- Sutarsyah, C. (2017). An analysis of student's speaking anxiety and its effect on speaking performance. *IJELTAL* (Indonesian Journal of English Language Teaching and Applied Linguistics), 1(2), 143-152.
- Wang, Q., & Du, F. (2020). Anxiety in Chinese language learning: relationship to motivation, attitude, and achievement. *Electronic Journal of Research in Education Psychology*, 18(52), 447-472.
- Wilang, J. D., & Vo, T. D. (2018). The complexity of speaking anxiety in a graduate EFL classroom. *Journal of Asia TEFL*, 15(3), 682.

# Manager's Personality Traits and Managerial Practices as Influencers to the Performance of Agribusiness in Region XI, Philippines

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## ABSTRACT

Agribusiness plays a crucial role in transforming the economy through agro-based industries development and provision of employment and income. However, the agricultural sector is dying, which has a significant effect on the country's economy. The purpose of this study was to determine the status and influence of manager's personality traits and managerial practices to the performance of agribusiness in Region XI, Philippines. This study employed quantitative design and data were obtained from the 320 agribusiness managers in Region XI. Utilizing survey questionnaire and appropriate statistical methods, the study found that the managers' overall level of personality traits and managerial practices were described as high while performance was very high. The results of the study revealed that there is a significant relationship between manager's personality traits and performance of agribusiness ( $r = 0.41$ ,  $p < 0.05$ ). Subsequently, managerial practices are significantly related to performance of agribusiness as shown in its  $r$ -value 0.60 ( $p < 0.05$ ). The result implies that 38.5% of the variation of the performance can be attributed to the combined influence of managerial personality and managerial practices. This result connotes that other variable comprising 61.5%, which may significantly influence the performance of agribusiness maybe explored in another study.

**KEYWORDS:** Business Management, Agribusiness, Manager's Personality Traits, Managerial Practices, Performance, Philippines

## INTRODUCTION

### Background of the Study

Agribusiness plays a crucial role in transforming the economy through agro-based industries development and provision of employment and income (Kwamega et al., 2018). Philippines is considered as an agricultural country and is blessed with natural resources and capacity of growing various kinds of high valued crops and raising livestock, poultry and other farm animals (De Guzman, 2018). However, the agricultural sector has only grown by an average of 1.1% value added since 2009 to 2013. As a consequence, Bannok (2005) affirmed that most businesses in the Small and Medium Enterprise sector all over the world are more prone to failure due to the specific qualities possessed by the businesses, their owners and managers.

Performance is measured by evaluating how well SMEs are performing well in their business operation (Shahbaz et al., 2014). According to Tambuan (2006), SMEs are important drivers for economic development and the empowerment of local communities. In addition, Brush (2006) emphasized that the increase in sales is used to measure the performance of a business. In fact, the agribusiness sector still provides employment close to thirty percent (30%) of the country's labor force even neglecting the importance of the sector in a developing country (PSA, 2018). Stating this, it can be an obvious initiative of encouraging entrepreneurs to engage in entrepreneurial activities that may lead to the creation of agribusinesses ventures to boost the level of a country's economic growth.

Many researchers have acknowledged personality traits as valid predictors of managerial success (Farrington, 2012). Zhang and Bruning (2011) found out that an entrepreneur's characteristics have a direct effect on business performance. Further, they claimed that the success of a small business depends strongly on the human capital of their owner-manager. On the other hand, a study of Shuying and Hui (2006) on exploring the effects of Chinese business management practices on business performance concluded that business leaders should adopt certain management practices to enable the strong performance of their businesses. Thus, MacGregor and Varzalic (2005) emphasized that for SMEs to survive and succeed in their business operations, it is pertinent that its owners or managers possess certain entrepreneurial characteristics and carry out specific business practices.

The researchers have determined a significant factor indicating that great work is still needed to determine which factors directly contribute to business performance. Moreover, the researchers did not find studies on the relationship between personality traits, managerial practices and performance which used the mixed methods approach in the local setting. Most of these studies were quantitative in nature. Hence, identifying and examining the emerging issues in the region would be vital to managers of agribusiness development and growth that implicate a significant effect on the country's economy. Additionally, this research, accompanied by necessary findings and results in an intensive investigation, would add to the existing body of knowledge enabling managers in the agribusiness sector to understand and focus on implementing the key managerial practices and adopting the key personality traits that can lead to quality performance of their businesses.

**Study Objectives.** This study was conducted to determine the influence of manager's personality traits and managerial practices on the performance of agribusinesses in Region XI. It measured the status of manager's personality traits, managerial practices and performance of agribusiness. Lastly, the study tested the relationship between manager's personality traits and managerial practices on the performance of agribusinesses and its significant influence on performance.

## METHODS

**Research Design.** The data were collected first and analyze using descriptive-correlational design. It was used to describe the relationship between manager's personality traits and performance, and managerial practices and performance of agribusinesses.

**Research Locale.** The study was done in Region XI particularly: Davao de Oro also known as Compostela Valley, Davao del Norte, Davao del Sur, and Davao Oriental because there were many agribusinesses in the Region. Specifically, the focussed of the study were Small and Medium Enterprises in agribusiness engaging in processing, manufacturing, production and aquaculture which were benefical to entrepreneurs/managers and local government to determine the desired manager's personality traits and appropriate managerial practices to have a better performance.

**Sampling and Respondents of the Study.** The study employed the purposive sampling technique which determined the number of manager selected in the study. Thus, participants were identified from the data of the Department of Trade and Industry (DTI), Business Bureau and/or through personal networks. The respondents were 320 managers of agribusinesses in Region XI. The following criteria were used: must be a manager or owner of SME in agribusiness such as crop production, animal production, fishery including aquaculture and manufacturing.

**Research Instrument.** The study used adapted survey questionnaire employing 5-point Likert Scale 1 (Very low) to 5 (Very High). The questionnaire has four parts: Part I focuses on the profile of the respondents; Part II on the status of Manager's Personality Traits was adapted from Isaga (2011) which has six dimensions namely: need for achievement, locus of control, risk of taking propensity, innovativeness behavior, tolerance ambiquity and self-fficacy; Part III, brought about the Managerial Practices was adapted from Wu (2009). It has the following dimensions: capability, resource, environment, strategy, process, measure and Analysis, and innovative learning; and Part IV on Performance was adapted from Akrof (2016). It has the following dimensions: increase sales, profitability and innovativeness.

**Data Gathering Procedure.** The data collection procedures were anchored on the University of the Immaculate Conception- Research and Ethics Committee (UIC-REC) policies and guidelines. The letter of permission to the Dean of the Graduate School to conduct the study was requested. When it was approved, the letters of request were given and/or personally deliver to the business managers/owners of agribusinesses in Region

**XI.** After obtaining the business managers' approval, the researcher personally approached individually the participants in the administration of the survey questionnaire. The fully accomplished survey questionnaires were personally retrieved by the researcher. The data were then tallied, tabulated and colleected for statistical analysis.

**Data Analysis.** Mean score was used to measure the status of manager's personality traits, managerial practices, and performance. Standard Deviation was used to measure the consistency of the responses of the research participants. Pearson-r determined the relationship between performance and the following: personality traits and managerial practices. Furthermore, the Multiple Regression Analysis measured which domains of manager's personality traits and managerial practices that significantly predict the performance of the agribusinesses.

**Ethical Considerations.** The University of the Immaculate Conception Research Ethics Committee (UIC-REC) conducted full board review on the ethical aspects of the investigation. Strict adherence to the principles of respect for persons and justice were considered. Specifically, study abides the 10 dimensions of research ethics that include social value, informed consent, vulnerability issues, risk-benefit ratio, privacy and confidentiality of information, justice, transparency, qualification of the researchers, adequacy of facilities and community involvement.

## RESULTS AND DISCUSSION

Presented in Table 1 is the status of manager’s personality traits, managerial practices and performance among managers in Region XI. The table showed that the overall mean of manager’s personality traits, managerial practices and performance are 3.93, 4.17 and 4.20 respectively. This means that manager’s personality traits and managerial practices are described as high while performance had a very high descriptive level. As shown in Table 1 the standard deviation of the variables and its indicators ranges from 0.55 to 0.64 which is less than 1.0 denotes consistency and homogeneity of responses among 320 respondents.

The respondents rated high level in all the indicators of manager’s personality traits, such as, need for achievement, locus of control, risk taking propensity, innovative behavior, tolerance for an ambiguity, and self-efficacy. This means that the manager’s personality traits of agribusiness are evident and oftentimes manifested in their respective company. The result supports the findings of Shane (2003) that entrepreneurs have to detect and exploit opportunities, make rapid decisions under uncertainty and in a resource constraint environment, work harder than most employees, and have to possess a wide variety of skills, knowledge, and abilities like leadership, management, marketing, and innovating. Also, it confirms with the study conducted by Taormina et al., (2007), stated that the success of the business is determined by the characteristics of the individual, and personality traits are also believed to be a significant indicator of managerial performance.

**Table 1**  
*Status of Manager’s Personality Traits, Managerial Practices and Performance of Agribusiness in Region XI*

Latent Variables / Observed Variables	Standard Deviation	Mean	Descriptive Level
<b>Manager’s Personality Traits</b>	<b>.55</b>	<b>3.93</b>	<b>High</b>
Need for Achievement	.59	4.22	Very High
Locus of Control	.91	3.80	High
Risk Taking Propensity	.68	4.01	High
Innovative Behaviour	.57	4.03	High
Tolerance for an Ambiguity	.61	3.88	High
Self-efficacy	.76	3.70	High

<b>Managerial Practices</b>	<b>.55</b>	<b>4.17</b>	<b>High</b>
Capability	.62	4.27	Very high
Resource	.63	4.12	High
Environment	.61	4.22	Very high
Strategy	.63	4.18	High
Process	.65	4.16	High
Measure and Analysis	.67	4.17	High
Innovation and Learning	.71	4.15	High
<b>Performance</b>	<b>.64</b>	<b>4.20</b>	<b>Very high</b>
Increase In Sales	.72	4.20	Very high
Profitability	.76	4.13	High
Innovativeness	.75	4.26	Very high

The managerial practices of agribusiness managers were described as high based on the overall mean 4.17. It was measured through the indicators that include capability, resource, environment, strategy, process, measure and analysis, and innovation and learning having a rating from high to very high. It indicates that these practices are evident and oftentimes practiced by the managers. This result affirms the finding of Parilla (2009) on the link between management practices, entrepreneurial competencies, and business success.

The definition of Shahbaz et al., (2014) of performance is measured by evaluating how well SMEs are performing well in their business operation. The overall mean indicates that the performance is very high which signifies that it is very evident. On the other hand, the increase in sales, profitability, and innovativeness were further used to measure performance. The means managers in agribusiness in Region XI have the ability to provide innovative products or services to customers. This finding affirms the assertions of Alasadi et al., (2007) that the performance of the SMEs can be seen from the satisfaction of the owner-manager on profit, turnover and business development. Further, it supports the notion of Farrington (2012) that business performance can also be determined by financial performance and growth performance

**Table 2**  
*Correlation Between Variables*

Variables correlated with	r value	p-value	Remarks
Performance			
Personality traits	.41	.00	Significant
Managerial practices	.60	.00	Significant

Data in Table 2 shows that there is a significant relationship between manager's personality traits and performance of agribusiness ( $r = 0.41, p < 0.05$ ). The finding agrees with the study of Wijewardena, Nanayakkara and De Zoysa (2008) that there is a strong relationship between the owner- manager's personality and the financial

performance of a business. It is also in parallel with the proposition of Zhang and Bruning (2011) that an entrepreneur's characteristics have a direct effect on business performance. Further, they claimed that the success of a small business depends strongly on the human capital of their owner-manager.

Subsequently, managerial practices are significantly related to performance of agribusiness as shown in its  $r$ -value 0.60 ( $p < 0.05$ ). The result is interpreted as significant which showed that managerial practices and performance of the respondents are significantly related with each other. The finding supports the proposition of Omri (2015) that innovative behavior and commitment of the entrepreneur positively affect venture performance and growth. The result further agrees the study of Wiesner, Poole and Banham (2007) that emphasized managerial practices as contributory to the firm's performance and are critical to the profitability and long-term success of SMEs.

**Table 3**

*Multiple Regression Analysis on the Influence of Manager's Personality Traits and Managerial Practices on Performance*

<i>Variables</i>	<i>Standard Coefficient Beta</i>	<i>p-value</i>	<i>T</i>	<i>Remarks</i>
Manager's Personality Traits	.19	.00	3.96	Significant
Managerial Practices	.52	.00	10.77	Significant
$r^2 = .385$				
$F = 100.90$				
$p = .00$				

Shown in Table 3 is the multiple regression analysis on the influence of the independent variables: manager's personality traits and managerial practices on performance of agribusiness in Region XI.

It can be gleaned that the two variables—managerial personality and managerial practices are significant influencers of the performance of the agribusiness on its individual capacity ( $p < .05$ ). Data show that a unit increase in managerial personality can lead to .19 increase in performance and also, a unit increase in managerial practices can result in .52 increase in performance.

As a model, the  $r^2$  of .385 implies that 38.5% of the variation of the performance can be attributed to the combined influence of managerial personality and managerial practices. This result connotes that other variables comprising 61.5%, which may significantly influence the performance is not covered in this study.

The result supports the study of Baum and Locke (2014) that link between entrepreneurial characteristics and the impact on the growth of a business venture. In a similar point of view, the finding is consistent with the result of the study of Omar et al., (2017) that personality can influence one's business performance. Also, the results affirm to the study of Reynolds et al. (2005) that there is no doubt that management practices are linked to the performance of an organization. Thus, it confirms to the claim of Laitinen (2002) that success/performance is the resultant of activities of a business entity as a whole which include strategy and operational activities, management of all segments of business such as human resources, finance, production, marketing.

On the other hand, the findings support to the proposition of Neneh (2011) which stated that a good combination of the entrepreneurial characteristics and businesses practices led to a long -term survival of Small and Medium Enterprises. Furthermore, the finding agrees on Theory of Innovation of Schumpeter (1934) which espoused that economic development is a new combination of productive resources on the introduction of new products, new production methods, exploration of new markets, conquering of new sources of supply and new ways of organizing the business.

## REFERENCES

- Alasadi, R. and Abdelrahim, A. (2007). Critical analysis and modelling of small business performance (Case study: Syria). *Journal of Asia Entrepreneurship and Sustainability*, 3(2).
- Bannock, G. (2005). *The economics and management of small business: an international perspective*. New York: Routledge
- Brush, C.G., Carter, N.M., Gatewood, E.J., Greene, P.G. and Hart, M.M., 2006. *Women and Entrepreneurship*. Edward Elgar.
- De Guzman, S.S. (2018). *The agriculture is dying in the Philippines*. <https://www.philstar.com/opinion/2018/06/18/1825542/agriculture-dying-philippines#MMWHzHM5gQ0cjgQj.99>
- Farrington SM (2012). Does personality matter for small business success?. *South African Journal of Economic and Management Sciences*, 15(4): 382-401.
- Kwamega, M., Li, D. and Abrokwah, E. (2019), "Empirical analysis of integration practices among agribusiness firms: Perspective from a developing economy", *Business Process Management Journal*, Vol. 25 No. 7, pp.1696-1715. <https://doi.org/10.1108/BPMJ-08-2018- 0220>
- Neneh, B.N. (2011). *The Impact of Entrepreneurial characteristics and Business practices on the Long-term survival of SMEs*. Unpublished Masters Dissertation, Department of Business management, University of the Free State, South Africa. 2011.
- Parilla, E. (2009). *Level of Management Practices of Micro and Small*
- Shane, S., (2003). *A General Theory of Entrepreneurship: The Individual – Opportunity Nexus*. Cheltenham: Edward Elgar Publishing Ltd.
- Schumpeter, J. A. (1934), *The theory of economic development*, Cambridge Mass: Harvard University Press.
- Shahbaz, M.A., Javed, A., Dar, A. and Sattar, T., (2014). Performance Measurement of Small and Medium Enterprises (SMEs) in Pakistan. *Archives of Business Research*, 2(3), pp.42-49.

- Shuying, W and Hui, X. (2006). The effects of Chinese business management practices on business performance. [online] Retrieved from: <http://base.chinaeuropaforum.net/rsc/docs/z.ws25-6-1300c.eng.pdf>. Accessed 19th July 2010].
- Tambunan, T. (2011), “Development of small and medium enterprises in a developing country: The Indonesian case”, *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 5 No. 1, pp. 68-82. <https://doi.org/10.1108/17506201111119626>
- Zhang, D. and Bruning, E., (2011). Personal characteristics and strategic orientation: entrepreneurs in Canadian manufacturing companies. *International Journal of Entrepreneurial Behavior & Research*, Volume 17, Issue 1, p. 82-103.

# The Knowledge Management and Performance Status of Agricultural Cooperatives in Region XI

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## ABSTRACT

Effective and proper knowledge management are crucial for cooperatives in developing and sustaining their operating performance. A sustainable cooperative plan was crafted as an output of this study. A survey was done among 400 cooperative regular members for the Mean, standard deviation, Pearson r correlation, simple regression and thematic analysis were used in analyzing the data. The results showed that the significant predictors of cooperative performance include knowledge capture, acquisition, and transfer, mentoring and training, and communications. Moreover, the combined influence of the three indicators is equivalent to 76.5 percent. The proposed cooperative plan offered options that may contribute improvement to the quality of life of the agricultural cooperative members.

**KEYWORDS:** Business management, performance status, knowledge management, agricultural cooperatives, convergent design, mixed methods, Region XI, Philippines

## INTRODUCTION

People living in extreme poverty in rural areas depend on agriculture related activities for their living (Kispal-Vitai et al., 2012). Organizations, like cooperatives are beneficial where a group individuals have a common interest in attaining the specific objective. Improvement of the ability of poor smallholder farmers to participate in the market is the serious challenge in most developing countries (Simelane, 2011).

Agricultural cooperatives around the world are facing major structural challenges as they respond to a more industrialized agricultural, global and freer trade. Despite government spending substantial amounts of money and training programs on smallholder farmer cooperatives in the country through support services, the performance of such cooperatives remains poor. The investment in smallholder farmer cooperatives proves not to generate the expected returns for the members and stakeholders (Masango, 2015). The Republic Act 11364 also known as the Cooperative Development Authority Charter of 2019 recognizes the right of the cooperative to initiate and foster within their own ranks cooperative promotion, organization, training, information gathering, audit and support services with government assistance.

International evidence shows that cooperative are among institutions that can help farmers to address numerous challenges that include economies of scale and

market participation (Masango, 2015). Effective and proper knowledge management are crucial for cooperatives in developing their competitive advantage and sustaining their operating performance (Huang, et al., 2011). Knowledge management has been considered as one of the main conditions for competitiveness of organizations in today's business environment. The knowledge creation has become important for organizations to stay competitive (Ting Si Xue, 2017).

Despite the increasing advancement of the global agenda for promoting cooperatives as vehicle for sustainable development, the role and contribution of agricultural cooperatives in marketing development are understated (Quillooy, 2015). With poor economic, having 4.87% GRDP in 2012, and employment performance, with 11 employees per cooperative on average, coupled with failures and closure of cooperatives as reported by CDA in 2013, the primary goal of cooperatives in the Philippines is to foster growth and promote self-reliance so that members would attain sustainable development, and not remain as unfulfilled aspirations and goals. The substantial aspect of this study is to fill the gap between that aspiration and the actual situation of cooperatives in Region XI. Knowledge management may indicate to have an influence to the performance status of agricultural cooperatives in achieving sustainable development.

Several research works and case studies such as those conducted by Castillo (2003), Manalili (2003), Araullo (2006), Geron (2014), Quillooy (2015), among others provided evidence of the important role of cooperatives in agriculture. But these research focused mainly on demonstrating the involvement of cooperatives in agricultural production and marketing, value chain upgrading through cooperative and market integration. Some of these case studies are into successful cooperatives in Luzon, but very limited studies on the performance status of agricultural cooperatives as evaluated based on the indicators of the dependent variable of this study. The researcher has accessed limited studies in the Philippines and also in other countries relating to knowledge management and performance status of agricultural cooperatives specifically in the local setting. Although there are available literatures on various research about cooperatives in the country, but these studies were mostly quantitative in nature.

This study seemed relevant as the findings could add to the body of literature regarding cooperatives. The conduct of this study can help small farmers enhance their participation in coming up with a sustainable cooperative plan to enrich the status of cooperative performance in Region XI.

As a final point, the results and findings could only become beneficial when disseminated to the audiences of this study. Results from the conduct of this study would be shared among groups of people in the cooperative sector, like the cooperative members, officers, administrators, and other organizations through stakeholders' forum, research presentations in local, regional, national and international fora or conferences and research publication to different journals. Moreover, copies of this study may be distributed to the provincial or city cooperative development offices, Cooperative Development Authority- XI, and other offices deemed to be necessary.

## METHODS

**Research Design.** This study, utilized the descriptive-comparative design to analyze the quantitative data gathered; wherein the performance of agricultural

cooperatives as regards to the status of members' knowledge management on cooperatives was assessed. An adapted questionnaire was employed to gather data through a survey method. Mean and Standard Deviation were used in particular to determine the status of knowledge management and cooperative performance among the agricultural cooperatives in Region XI. Pearson Product Moment Correlation was used to establish relationship between the indicators of knowledge management and cooperative performance. While regression analysis was used to determine which indicator of knowledge management best influenced cooperative performance.

**Research Locale.** This study was conducted in Region XI or known as Davao Region, particularly in agricultural cooperatives operating either in the municipalities or cities of the said region. Based on the data from Philippine Statistics Authority, Region XI is the most populous region in Mindanao with a total of 4.8 million inhabitants in 2015. Further, based on 2015 statistics,

**Research Respondents.** The participants of the study were the 400 cooperative members in Region XI. Based on the official website of Cooperative Development Authority as of 2018, there are 393 agricultural cooperatives in Region XI which is composed of the following; 76 cooperatives in Davao City, 135 cooperatives in Davao del Norte, 97 cooperatives in Davao de Oro and 85 cooperatives in Davao Oriental. From this statistics, quota sampling was employed as method of gathering representative data from a group. A total of 40 cooperatives were involved in the study.

The participants were coming from registered agricultural cooperatives as recognized by CDA in the region. Members of these agricultural cooperatives were chosen using purposive sampling. As a sampling technique, purposive sampling relies on the personal judgement of the researcher when choosing members of population to participate in a research study. To maintain consistency, set of criteria were followed. Thus, participant must be an active regular member for not less than 5 years of an agricultural cooperative in Region XI; a Filipino citizen; and categorized as member of good standing.

**Research Instruments.** Set of survey questionnaires was used to generate the quantitative data of this study. The first part of the questionnaire was focused on the sociodemographic and basic information of the respondents. The second part was about the knowledge management and performance status of agricultural cooperatives as viewed by the cooperative members. The research tool was subjected to experts on the validity of its contents before the conduct of the survey. To describe the knowledge management and performance status of cooperatives in Region XI, a five-point Likert Scale was employed as to the different indicators for each variable.

**Data Collection.** This study followed the basic procedure in collecting the quantitative and qualitative data in which the collection was done at the same time. The data collection started after the official approval of the conduct of the study. All the necessary documents were prepared ahead of time. The research instrument was validated and tested for its reliability, the researcher prepared communication letters duly noted by the Adviser and approved by the Graduate School Dean. These letters were sent to all the Provincial and City Cooperative Development Offices requesting approval for the conduct of the study their area of responsibility. Letters were personally tendered and immediate responses from concerned authorities were

received. A courtesy call with the Cooperative Development Officer was also done to express the main purpose of the study. All the Cooperative Development Officers were very responsive and supportive with this academic endeavour through nominating agricultural cooperatives as respondents of the study.

Before the distribution of the validated survey questionnaire, an expressed approval from the General Manager or the Chairperson of the Board of Directors was given to the researcher. The schedule for the data gathering was set based on the convenient available time of the respondents. The researcher together with her enumerators went to the location of the cooperatives and conveyed her sincerest gratitude for the approval of the request. Then, survey questionnaires were distributed after explaining the contents of the research instrument. Respondents were given enough time to answer the questionnaire. In cases of clarifications, respondents were given the opportunity to ask questions and these were answered immediately. Answered survey questionnaires were collected back after. Earnest gratitude was expressed to all the respondents in the end.

## RESULTS AND DISCUSSION

The results of the quantitative data gathered through administering validated survey questionnaires to the 400 respondents of the study. Ten members from each agricultural cooperative were asked to answer the survey questionnaire from each study area. The status of knowledge management and performance of agricultural cooperatives, the best influencer of cooperative performance among the indicators of knowledge management and the correlations of the two variables were specifically presented in this section.

### Status of Knowledge Management and Cooperative Performance

Descriptive statistics was used to reveal the status of knowledge management and cooperative performance as shown in Table 1. In the table, the standard deviation is below 1.0 which is the typical standard deviation for a 5point Likert Scale. This indicates that there is consistency and homogeneity of responses among the 400 member-respondents of agricultural cooperatives in Region XI. Knowledge management obtained a 4.31 overall mean score and this variable was rated very high by the respondents which signify that generally, the concept of knowledge management was strongly valued and practiced in their agricultural cooperative.

**Knowledge capture, acquisition and transfer.** This indicator obtained the highest category mean of 4.56 among the three indicators of knowledge management which is described as *very high*. Hence, the concept of knowledge management is strongly valued and practiced in the cooperative. The statement about the *importance of knowledge as a resource of the cooperative* yielded the highest mean score of 4.62, described as very high. While the situation pertaining to the *regularity of application and transfer of knowledge learned from various institutions* was rated with the lowest mean score of 4.51, which is also described as very high.

**Table 1**  
*Status of Knowledge Management and Cooperative Performance*

Latent Variables/ Observed Variables	Standard Deviation	Mean	Descriptive Level
<b>Knowledge Management</b>	<b>0.40</b>	<b>4.31</b>	<b>Very High</b>
Knowledge Capture, Acquisition and Transfer	0.48	4.56	Very High
Mentoring and Training	0.47	4.52	Very High
Communication	0.63	3.89	High
<b>Cooperative Performance</b>	<b>0.39</b>	<b>4.35</b>	<b>Very High</b>
Membership Base	0.47	4.55	Very High
Governance, <u>Leadership</u> and Internal Democracy	0.47	4.52	Very High
Management of Human and Financial Resources	0.45	4.38	Very High
Collaboration and Alliances	0.45	4.52	Very High
Service Provision to Members	0.48	4.51	Very High
Production and Production Risks	0.64	3.78	High
Relationship between farmers and buyers	0.48	4.51	Very High

**Mentoring and training.** The category mean for this indicator is 4.52, described as very high, which shows that concept of knowledge management is strongly valued and practiced in the cooperative. Of the six statements under this indicator, the item about the *provision of formal trainings to cooperative members* yielded the highest mean score of 4.56, still described as very high. On the other hand, the situation pertaining to the allocation of budget for training and mentoring of employees was rated very high with a mean score of 4.43.

**Communication.** This indicator of knowledge management got the lowest category mean score of 3.89, described as *high*, which signifies that the concept of knowledge management is valued and practiced in the cooperative. Among the six statements under this indicator, the item on having information database maintained by the cooperative yielded the highest mean score of 4.47, described as very high. On the contrary, the aspect on sharing knowledge or information by project teams physically separated from the cooperative got the lowest mean score of 2.79, labelled as average. Also, the status of performance among agricultural cooperatives in Region XI was presented in Table 1. Based on the result of the study, *Cooperative Performance* has a *very high* descriptive level with an overall standard deviation of 0.39 and 4.35 as total mean score. This conveys that the performance of agricultural cooperative was highly favourable. Under this variable, almost all of the indicators of cooperative performance obtained standard deviation ranging from 0.45 to 0.48 and means scores ranging from 4.38 to 4.55, labelled as *very high* rating.

**Membership Base.** This indicator of cooperative performance got the highest category mean score of 4.55, described as very high rating which denotes that the cooperative performance is highly favourable. Of the nine statements under this indicator, the item that the *cooperatives having clearly formulated objectives* yielded the highest mean score of 4.59, still labelled as very high. While, the aspect on

*prospecting new members of the cooperative from the community* gained a mean score of 4.49, still described as very high.

**Governance, leadership and internal democracy.** The category mean score of this indicator is 4.52, which is described as *very high*. The highest mean among the statements under this indicator was the aspect of *having cooperative officers who perform according to their mandates*, obtained a score of 4.58, still considered as very high rating. Moreover, the situation on *having women and youth representation in the elected bodies* got also a very high rating with a mean score of 4.40.

**Management of human and financial resources.** This indicator of cooperative performance obtained a category mean score of 4.38, described as *very high* rating. Out of 12 statements under this indicator, two aspects yielded the same highest mean score of 4.54 and these include *having manual of operation describing the handling of money and keeping of important documents safely*. On the contrary, the aspect on *needing financial support from external organizations to function well* got the lowest mean score of 2.76, labelled as average.

**Collaboration and Alliances.** The category mean for this indicator was 4.52, described as *very high* rating. The condition on *being compliant and legally recognized* got the highest mean score of 4.56, still described as very high. Subsequently, still having a very high rating with a mean score of 4.50, the aspect on *working together with non-governmental organizations* got the lowest mean score among the eight statements of this indicator.

**Service Provision to Members.** This indicator yielded a *very high* rating with 4.51 as category mean score. Of the nine statements under this indicator, the condition on *producing activity reports on time and discussing it during meetings* got the highest mean score of 4.54, described as very high. Further, with the same very high rating, the condition on defending the interest and needs of the members obtained the lowest mean score of 4.48.

**Production and production risks.** This indicator obtained the lowest category mean score of 3.78, described as *high* rating among the seven indicators of cooperative performance, which implies that the cooperative performance is favourable. The aspect on ensuring the production of good quality products yielded the highest mean score of 4.52, labelled as very high rating among the twelve statements under this indicator. While, the lowest mean score is 2.72, described as average rating was on *considering cost of production inputs low*.

**Relationship between farmers and buyers.** This indicator yielded a category mean score of 4.51, labelled as *very high* rating. The highest mean under this indicator was on the aspect of *having sufficient trainings from the cooperative to produce more and higher quality products* with a score of 4.54, still labelled as very high. Additionally, of the 12 statements, two conditions obtained the same very high rating with a mean score of 4.49 these include *knowing precisely the written contract with the company and getting higher price for better quality products*.

## Influence of Knowledge Management on Cooperative Performance

The quantitative data in Table 2 showed the result of the correlation of the indicators of knowledge management and cooperative performance. Correlation is necessary as prelude to regression which will determine the influence aspect of the study.

**Table 2**  
*Correlation between Knowledge Management and Cooperative Performance*

Indicators paired with Cooperative Performance	r	p-value	Interpretation
Knowledge Capture, Acquisition and Transfer	.74	.00	Significant
Mentoring and Training	.72	.00	Significant
Communications	.56	.00	Significant

The result showed that the three indicators of knowledge management; knowledge capture, acquisition and transfer, mentoring and training and communication were strongly correlated with cooperative performance with Pearson correlation coefficient total value of 0.87. Subsequently, all indicators of the independent variable are statistically significant with p-value at 0.00 ( $p < .05$ ). The significant relationship between knowledge management and cooperative performance point out the utilization of regression analysis.

In Table 3, the result of the regression analysis on the influence of the domains of knowledge management on cooperative performance was presented. The data show that all the indicators of knowledge management that include knowledge capture, acquisition and transfer, mentoring and training and communications on its singular capacity were significant influencer of cooperative performance with p-value at 0.00 ( $p < .05$ ).

**Table 3**  
*Regression Analysis on the Influence of Knowledge Management on Cooperative Performance*

Influencers	Cooperative Performance		
	Standard Coefficient B	p-value	Interpretation
Knowledge Capture, Acquisition and Transfer	.38	.00	Significant
Mentoring and Training	.42	.00	Significant
Communications	.33	.00	Significant
<b><math>r^2 = .765</math> <math>F = 433.71</math> <math>p = .00</math></b>			

Further, the beta coefficient implies that for every unit increase in knowledge capture, acquisition and transfer, there corresponds an increase of 0.38 in cooperative performance. Also, every unit increase in mentoring and training leads to 0.42 increase in cooperative performance. Moreover, every unit increase in communications may cause an increase of 0.33 to cooperative performance.

As a model, the  $r^2$  of 0.765 implies that 76.5 percent of the variation of the cooperative performance can be attributed to the combined influence of knowledge capture, acquisition and transfer, mentoring and training and communications. It indicates that there are other factors equivalent to 23.5% that could serve as influencers of cooperative performance, which are not covered in the study.

## CONCLUSIONS

Members and officers expressed that the performance of their agricultural cooperatives was highly favorable as evidenced by a very high rating of six indicators of cooperative performance. Desirable experiences and practices of cooperative members confirm this very high rating. However, the qualitative strand recorded sad experiences of some informants being a member of cooperatives as shown in the emergent theme, sad episodes which are not covered in the survey questionnaire of the quantitative strand. In terms of the status of knowledge management, the very high level ratings was evident in the quantitative results of the study and was verified by the displayed positive experiences of members in all indicators. This is an indication that members of agricultural cooperatives strongly valued and practiced all the concepts of knowledge management.

The three indicators of knowledge management significantly influenced cooperative performance in their singular capacities. But, based on the beta coefficient values, Mentoring and Training came out as the indicator which best influence cooperative performance as it has the highest value compared to the other indicators. Conversely, the qualitative results did not totally contradict nor agree with the quantitative result.

All agricultural cooperatives are registered and compliant with the requirements of the Cooperative Development Authority. These cooperatives have existing bank accounts and registry books maintained. Members and officers of agricultural cooperatives in Region XI are informed and aware of the objectives set by their cooperatives. Officers are elected based on election guidelines and functions according to their duties. The general assembly meeting is conducted once a year, which the annual plan and budget, financial reports and other accomplishments are being presented. Attendance to cooperative education and trainings are encouraged among members and officers. These trainings are provided by the local cooperative development council through an accredited training provider. Cooperatives extend support to the production of agricultural products through lending additional capital among members at lower interest. Members are at their best every time they will receive the interest of their shares, patronage refund and other perks of being a cooperative member.

Cooperative members understood that all indicators of knowledge management are important contributors of improving cooperative performance. As important resource, knowledge management is being valued and practiced all throughout the cooperative. Because of the allocation of funds, particularly in the cooperative education training fund, cooperative is able to send members and officers in different skills development

and mandatory trainings which will benefit both parties. Significant learnings from formal and informal trainings are transferred and shared to the rest of the members of the cooperative. Members also emphasized the value of open communication among members to maintain harmonious relationship in the cooperatives.

For the integration of quantitative and qualitative results, there were two natures of integration observed. One was merging-confirmation, when all indicators of cooperative performance corroborated with Membership Base; Governance, Leadership, and Internal Democracy; Management of Human and Financial Resources; Collaboration and Alliances; Service Provision to Members; Production and Production Risks; and Relationship between Farmers and Buyers. The same nature of integration was noted when three indicators of knowledge management validated the accounts on the lived experiences of the participants of the study. Also, merging-confirmation was substantiated on the influence of all indicators of knowledge management as important contributors of cooperative performance. The other nature of integration was merging expansion. It is perceived when data from two sources do not confirm nor contradict the other. This integration was observed when the quantitative data did not account for negative experiences of respondents on cooperative performance and when sad episodes emerged as theme in the qualitative strand of the study. Also, merging expansion was obtained.

The proposed cooperative action plan was suggested based on the Philippine Cooperative Development Plan 2018-2022, and other existing documents. This cooperative plan offers options for action for agricultural cooperatives in Region XI that will contribute to the societal goal of poverty reduction and the improvement of the quality of life of the members of cooperatives. Formulation of Cooperative Training Program as basis for the attendance of members to skills development trainings was one of the options for action. All items in the action plan are recommendations to promote and facilitate advancement in the cooperative sector as a whole.

The results of this convergent design mixed methods research study supports the Theory on Cooperation by Rubotka (1946) which explained that cooperative as a business organization is founded on certain bases which make it unique and distinct from other types of business organization. Generally, cooperative enterprises are considered as an attractive model of business organization because they are run as democratic enterprises where members have the control over their own business and operate it to meet their common needs, thus enabling them to be socially and economically self-reliant citizens; by pooling members' financial resources, the cooperative can provide a way to raise capital; cooperatives provide members with a guaranteed market for their produce; and lastly, cooperatives contribute to rural development by affecting the lives of their members through increase in employment and improvement in financial position and social conditions.

## REFERENCES

- Araullo, D.B. (2006). Agricultural Cooperatives in the Philippines: Innovations and Opportunities in the 21st Century. Paper presented during the 2006 FFTC-NACF International Seminar on Agricultural Cooperatives in Asia: Innovations and Opportunities in the 21st Century, 11-15 September 2006, Seoul, South Korea.

- Castillo, E.T., J.P. Baskiñas, W.D. Medina, A.L. Albano, A.B. Peria, and A.C. Manila. (2003). Cooperativism in Agriculture: The Case of Top Four Cooperatives in Region IV, Philippines. Philippine APEC Study Center Network, Makati City, Philippines. 11 August 2019. Available online from <http://pascn.pids.gov.ph/files/Discussions%20Papers/2003/01.pdf>
- Geron, R.B.(2014). Role of Cooperatives in Agricultural Supply Chains. *Paper presented during the Roundtable Discussion on Food Security: Marketing and Postharvest*, 1 October 2014, Quezon City, Philippines.
- Huang, Q., Davison, R. M., & Gu, J. (2011). The impact of trust, guanxi orientation and face on the intention of Chinese employees and managers to engage in peer-to-peer tacit and explicit knowledge sharing. *Information Systems Journal*, 21(6), 557-577.
- Manalili, N.M. (2003). Linking Farmers to Market through Cooperatives Vegetables Supply Chain Redesign Options for Kapatagan, Mindanao, Philippines. *Paper presented at the Australian Agricultural and Resource Economics Society Conference*, 11-14 February 2003, Perth, WA.
- Masango, R. (2015). "Assessing the Performance of Smallholder Farmer Cooperatives – A Member's Perspective. A Case Study Of Mogalakwena Municipality (Limpopo Province). M.Sc. (Agricultural Economics) thesis. Department of Agricultural Economics, University of Free State. Bloemfontein.
- Quilloy, K.P. (2015). "Empowering Small Farmers through Cooperative: The Success Story of Subasta Integrated Farmers Multi-Purpose Cooperative." *International Review of Management and Business Research* 4(1): 361-375
- Simelane, N. (2011). An assessment of the role of co-operatives in Smallholder dairy production and marketing in Swaziland. M.Inst.Agrar. Dissertation, Department of Agricultural Economics, Extension and Rural Development, University of Pretoria, Pretoria.
- Ting Si Xue, Colin.(2017). A Literature Review on Knowledge Management in Organizations. *Research in Business and Management*. Vol. 4, No. 1.

## The Performance Status of Credit Cooperatives in Region XII, Philippines

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### ABSTRACT

This study assessed performance status of the credit cooperatives in Region XII in terms of leadership, human resources management, members, structure, system and mechanism. The study utilized a quantitative descriptive design. The participants of this study comprised 400 regular members of the different credit cooperatives in Region XII and were chosen through purposive sampling. Adapted survey questionnaires were validated and utilized. The researcher used the mean, analysis of variance and t-test in analyzing the data. In this study, findings revealed that cooperative affiliation, years of existence, attitude and lifestyle of the members significantly differ in the performance of their credit cooperatives. On the other hand, out of the five indicators, performance structure of the cooperative was rated as very high. This means that the practices of credit cooperatives in Region XII are always evident.

**KEYWORDS:** Business Management, Performance Status, Credit Cooperatives, Leadership, Human Resources Management, Members, Structure, System and Mechanism, Philippines

### INTRODUCTION

Credit cooperatives want to survive and thrive in the new international context. According to Cooperative Development Authority-Statistics of 2014, credit cooperatives comprise 24.05% of the total number of registered cooperatives in the Philippines and that 4.4% of those are operating in Region XII with an average number of members of 438 per cooperative. There are 19 cooperatives or 4.26% with net loss since they cannot ignore their inefficiencies in both the financial and social dimensions of their activity (Campillo et al., 2016). Complicating the issue most especially in Region XII is due to the lack or absence of a concrete strategic and development plan, budget and operational policies that will serve as guide for the credit cooperative officers and personnel to maximize the use of limited resources to prevent high past due rate that further stifles the growth of the cooperative. (Lab-oyan, 2018).

Cooperatives have been classified as financial intermediaries that pay attention to social criteria. Thus, if such entities social enterprises are increasingly attracting the attention of scholars and practitioners today owning the growing demand for business organizations to trigger positive social change (Pache et al., 2013; Battilana et al., 2014; Miles et al., 2014; Battilana et al. 2015; Ramus et al., 2015). Furthermore, the improvement toward financial and non-financial performance management controlled by resources as the determinant of the entire success of performance main problem

faced credit cooperatives, thus, credit cooperatives have a high level of non-performing loans (NPL) at 6.60 percent. (Sasongko, et al., 2015)

In total, about one billion people are involved in cooperatives in some way, either as members, customers or as employees and participants, or as both. Cooperatives employ at least 100 million people worldwide, and the livelihoods of nearly half the world's population have been estimated as made secure by cooperative enterprise. The world's largest cooperative enterprises have collective revenues of USD 1.6 trillion, which are comparable to the GDP of the world's ninth largest economy, Spain. As value-based and principle driven organizations, cooperative enterprises are by nature a sustainable and participatory form of business. They place emphasis on job security and improved working conditions, pay competitive wages, promote additional income through profit-sharing and distribution of dividends, and support community facilities and services such as health clinics and schools. Cooperatives foster democratic knowledge and practices and social inclusion, making them well-placed to support the achievement of sustainable development. Cooperatives have also shown resilience in the face of the economic crises. (Contribution of Cooperatives to Sustainable Development, 2015).

Consequently, this is turning out to be especially relevant in the financial sector, where the abuses and limitations of traditional commercial banks are leading to the development of what are known as "Social Economy financial institutions" (Martinez-Campillo et al. 2013; Cornee et al., 2014; Gutierrez- Nieto et al. 2015; Jackson 2015). Cooperatives are business owned and controlled by the people who use them as it differs from other business because their member owned and operate for the benefit of members rather than making profits for the investors. As such, cooperatives were organized on the basis of benefiting members in the following aspects which include improve bargaining power, improve income level, alleviate poverty, reduce cost, acquisition of skills, obtain products or services otherwise unavailable, expand new and existing marketing opportunities as well as improve product or service quality (Olabisi et al., 2015). This social value may be appreciated by furnishing the result of this study to the credit cooperatives in Region XII.

Most of the researches conducted regarding credit cooperatives were centered on the analysis on savings and credit efficiency (Asawaruangpipop et al., 2014) but very limited studies on the status of its performance that can be evaluated and assessed through leadership, human resource management, members, structure and system and mechanisms. The researcher has not come across any study in the Philippines relating to the topic mentioned above specifically in Region XII. Although delinquency rate can be associated and identified in various researches, but very few focuses on the status of performance of the credit cooperatives most especially on the financial and non-financial perspective. It is on this reason that the researcher desires to conduct a study that will assess the status of performance of the credit cooperatives in Region XII as being assessed by its members and come up with an action plan to enhance the performance of the said credit cooperatives.

Finally, findings of this study will only be useful and helpful when disseminated to various groups of people and institutions most especially to the cooperative industry. After the conduct of the study, a stakeholders' forum will be organized to be participated by credit cooperative members, cooperative managers and officers, research participants, scholars, future researchers and the public in general. This study will also be presented to local, national and international conferences. Furthermore,

copies will be sent to the Cooperative Development Authority (CDA), mini-libraries of the credit cooperatives in Province of North Cotabato, Provincial Cooperative Development Office (PCDO) and library of University of the Immaculate Conception. Finally, this study will be published in the national and international journals.

## METHODS

**Research Design.** In this study, the quantitative data were collected and analyzed using descriptive-comparative design. They were used to compare the perspectives of the members of the credit cooperatives as regards to their demographic profile and psychographic characteristics towards its performance as far as leadership, human resource management, members, structure and systems and mechanisms are concerned. An adapted questionnaire was used to gather the data using survey method.

**Research Locale.** The study was conducted in Region XII particularly in the ten credit cooperatives operating either in municipalities or cities of the said region. It is one of the regions in the Philippines located in central Mindanao. It has an acronym of SOCCSKSARGEN which stands for South Cotabato, Cotabato, Sultan Kudarat, Sarangani, and General Santos City. It is highly diversified and considered as one of the major food baskets in the country (Business World Online (2015). It supplies the country with rice, corn, and other essential products and a key producer of natural rubber, palm oil, coconut products, and others.

**Research Respondents.** The research respondents of this study were 400 regular members of credit cooperatives in Region XII. These members are coming from different credit cooperatives that are registered with the Cooperative Development Authority (CDA). They were chosen using purposive sampling. This method is a sampling technique in which researcher relies on his personal judgment when choosing members of population to participate in the study. To attain homogeneity, the following criteria were set: must be a Filipino citizen, currently a regular member of a credit cooperative in Region XII.

**Research Instruments.** In order to generate the quantitative data, the researcher used a set of survey questionnaires. Part 1 focuses on the demographic profile and psychographic characteristics of the respondents. Part II on the performance status of the credit cooperatives as assessed by its members. This tool was subjected to content validity of five experts. The 5-point Likert scale was used in describing the performance status of the credit cooperatives in Region XII as to its leadership with twenty three items, human resource management with twelve items, members with ten items, and structure with four items, system and mechanisms aspects with six items.

**Data Collection.** In the collection of the necessary data, the researcher used the basic processes. Letters requesting to conduct research was sent to the managers or chairpersons of the credit cooperatives in Region XII. After obtaining approval, the researcher communicated the participants and requested for their available dates of data gathering. During data collection, the researcher made sure that the work of the participants will not be disturbed. The survey questionnaire was administered personally by the researcher in their respective places in Region XII. An informed

consent was first secured from the participants and any questions and/or clarifications pertaining to the administration of the survey questionnaires were entertained.

## **RESULTS AND DISCUSSION**

The overall performance status of the credit cooperatives in Region XII, in terms of Leadership, Human Resource Management, Members, Structure, System and Mechanism, as evaluated by the respondents got a mean score of 4.27. This indicates that cooperative practices are always evident. Likewise, the standard deviation of the credit cooperative's performance status is below 1.0 which is the typical standard deviation for a five point Likert scale. This denoted that there is consistency of responses and homogeneity of results (Table 1).

**Leadership.** The items under leadership revealed mostly very high and high. This means that the practices of their credit cooperative are always evident in its performance. Moreover, it was also evident that the functions, duties and responsibilities of officers are clear and that the Board of Directors are conducting regular meetings on the striking a fine balance between the process of making the decisions and the process of implementing those decisions that creates a total balance between economic performance and social responsibility. (Saxena, 2012). The lowest item though it was still rated as high revealed that the balance of the composition of officers is oftentimes evident and that it was argued by Saxena (2012) that to be able to have an effective cooperative leadership there must be balance, autonomous, independence and member driven accountability and that one must be knowledgeable in terms of business dimension, vision and objectives to come up with a viable and transparent decision making.

**Human Resource Management.** The results revealed that the practices of the credit cooperative in terms of policies of the personnel, clarity of the functions, duties and responsibilities and the conduct of scheduled meeting are always evident in its performance and operations as argued by Soni (2013) that the said aspects are an important component for the success of any organization and that it also plays a crucial role in the implementation of the strategic management in cooperatives. Moreover, the practices of the credit cooperatives in terms of the conduct and application regularly of the performance gap analysis revealed to be oftentimes evident in its performance and that the said design should conform to the basic principles of human resource development management of a sound institution (Soni, 2013).

**Members.** The results revealed that the members were rated as very high. This means that practices in the credit cooperative in terms of membership are always evident in its performance status. The result is supported by the Cooperative Principles (2018) that every individual will be receiving fair decision making rights after becoming a member of the credit cooperative. The principles of cooperativism is in place in putting their values into practice, the principle of voluntary membership states that cooperatives have to accept only a predetermined numbers of members, depending on the capacity of the member to contribute equitably to the society and democratically control the capital of their cooperative societies and notes that cooperatives serve

their members most effectively, whilst at the same time strengthening the cooperative movement to work together through local, regional, national and international. On the other hand, systems and mechanism also rated as very high which means that systems are established by management in order to carry on the business in efficient manner and expected to provide only reasonable assurance to the entity's management and board to the achievement of business objectives regarding the effectiveness and efficiency of operations, reliability of financial reporting and compliance with applicable laws and regulations.

**Structure.** Structure of the credit cooperative revealed as very high and it means that the practices of the credit cooperative in terms of the alignment of its organizational structure with the provision of laws, regulations and by-laws and the clarity of its functions as defined in the organizational chart are always evident on its performance and operations. This also means that the performance status of the credit cooperative is highly determined by its structure as argued by Gartenstein (2018) that the cooperative businesses are owned by their stakeholders who have a say in crucial decisions, from electing its officers up to deciding and approving the businesses to be ventured with. Further, the clarity on the functions, duties and responsibilities of the officer in the management chart rated as the lowest although still describe as very high under this indicator since most of the officers do not have clear definitions regarding their functions and duties of their respective positions which contributed to low performance status of the cooperatives in the region, this result is supported by Kalmi (2012) that the social efficiency needs to be measured by the ones with important functions so to determine its performance status relative to their social mission in order to improve their performance and competitiveness in the new international context of cooperative governance and functions.

**System and Mechanism.** The category mean score of system and mechanism is 4.24 which described that its practices are always evident in the performance status of the credit cooperatives in Region XII. Similarly, its practices on the books of accounts that were updated described as always evident ( $x=4.33$ ). Moreover, that cooperative's practices on the compliance to the government requirements, cooperative development authority, bureau of internal revenue, department of labor and employment, social security system, pag-ibig, PhilHealth, local government units-business permit and social laws are also always evident ( $x=4.32$ ) while its practices on the provision of retirement fund obtained the lowest mean score of 3.92 which indicates as oftentimes evident.

### **Test of Significance of the Difference of the Performance of Credit Cooperatives**

Data shows that there is no significant difference in the performance of credit cooperatives as assessed by the members when they are grouped according to age, educational attainment, marital status, employment status and type of industry served as manifested by p-values which are greater than .05. This result implies that the performance rating they gave is of the same level regardless of their age, educational attainment, marital status, employment status and the type of industry they serve.

On the other hand, a significant difference exists in the performance of credit cooperatives when respondents are grouped according to cooperative affiliation and years of existence with p-values of .000 and .005, respectively, which are both lower than .05. This finding connotes that the employees of the larger cooperatives (401 and above members) have higher performance rating as compared to those of the smaller cooperatives (52 to 100 members) as revealed by the post hoc result. As regards the age of the cooperatives, those employed in the older institutions (11 to 20 years and 30 and above) have higher performance rating as compared to those of the younger institutions (1 to 10 years old) as per post hoc result.

T-test of the performance of credit cooperatives significantly differ when respondents are grouped according to personality and lifestyle ( $p < .05$ ). Result shows that the extrovert respondents have given a higher performance rating as compared to those with introvert personality. Also, a significant difference exists in the performance of credit cooperatives when respondents are grouped according to lifestyle ( $p < .05$ ). The respondents with active lifestyle gave higher rating ( $m = 4.28$ ) as compared to those with passive lifestyle ( $m = 4.11$ ).

However, there is no significant difference in the performance of credit cooperatives when respondents are grouped according to sex and attitude with p-values which are greater than .05. This result implies that the performance rating is comparable regardless of the sex and attitude of the respondents.

## CONCLUSIONS

In terms of the performance status of the credit cooperatives in Region XII, It is evident in the data integration that the credit cooperatives are highly performing in most of the areas of operations required of them being a credit cooperative as far as leadership, human resource management, members, structure, system and mechanisms are concerned. However, there is lack of continuous education, trainings and seminars for the members that should be implemented to improve their capacities and capabilities as future leaders of the credit cooperatives.

In terms of the performance of credit cooperatives as assessed by the members when grouped according to their demographic profile and psychographic characteristics it is evident that it has no significant difference in the performance and that it is of the same level regardless of their age, educational attainment, marital status, employment status and the type of the industry they serve. Also, there is no significant difference in the performance of credit cooperatives when members are grouped according to sex and attitude and it implies that the performance rating is comparable regardless of their sex and attitude. However, member's cooperative affiliation, years of existence, personality and lifestyle significantly differ as to the performance of their credit cooperatives.

In terms of the lived experiences of the credit cooperative members of Region XII, it is evident that the members were able to value the essence of savings mobilization since they started to become a member of a credit cooperative and that they also find it very advantageous in their part as a member since they will be entitled to avail the products and services it offered such as credit facilities with minimal interest rates and that it also serves as the venue of the members for savings deposits and share capital investments with much higher interest rates compared to other organizations accepting deposits to be utilized by the cooperative on its internal resource generation program.

It is also evident that the members were able to enjoy the benefits that the credit cooperatives are extending to its members such as the distribution of dividends and patronage refund, hospitalization and mortuary benefits. The dividend and patronage refund are to be computed out of the services availed by the members. However, it was noted that the credit cooperatives was lack in the implementation of its corporate social responsibility as being mandated by the Cooperative Development Authority (CDA). It was also noted that the products and services availed by the members were affected by its inefficiency. This is due to lack of monetary capitalization and lack of technology upgrading.

In terms of the insights that the members can offer as to the contribution of their demographic profile and psychographic characteristics towards the performance of their credit cooperative, it is evident educational attainment and gender of a member is not a factor in the success of the credit cooperative however there was lack in the gender and development seminars and all other seminars as prescribed by the Cooperative Development Authority (CDA) to be attended by the members. In terms also of the attitude of the members, it is also evident that optimistic members are helpful in the attainment of the credit cooperative's goals and objectives however sometimes it will be a reason for other cooperatives to be sloppier in the implementation of their rules and policies.

In terms of the extent that the qualitative data confirm with the quantitative data is that functions roles and responsibilities were clearly stipulated and that human resources management manual is approved by the Board of Directors. Moreover, the organizational structure is in line with rules and regulations of the Cooperative Development Authority (CDA) however on the system and mechanism it is therefore concluded that lack of technology adoption made its performance inefficient.

On the basis of the findings, the credit cooperatives really need to come up with a viable and feasible plan in order to sustain the performance of the credit cooperatives in an efficient manner.

## REFERENCES

- Battilana, J., Sengul, M., Pache, A. C., & Model, J. (2015). Harnessing productive tensions in hybrid organizations: The case of work integration social enterprises. *Academy of Management Journal*, 58, 1658–1685. doi:10.5465/amj.2013.0903 Retrieved from <https://search.proquest.com>
- Campillo, M.A , Santos, F. Y (2014) What About the Social Efficiency in Credit Cooperatives? Evidence from Spain. Retrieved from <https://search.proquest.com>.
- Cooperative Principles (2018). Retrieved from <http://www.ica.coop/coop/principles.html> on October 18, 2018.
- Gartenstein, D. (2018). Advantages & Disadvantages of a Cooperative Business. Retrieved from <https://bizfluent.com/info-8183469-advantages-disadvantages-cooperative-business.html>

- Gutierrez-Nieto, B., Serrano-Cinca, C., & Mar Molinero, C. (2009). Social efficiency in microfinance institutions. *Journal of the Operational Research Society*, 60, 104–119. Retrieved from <https://search.proquest.com>
- Kalmi, P. (2012). Finnish Co-operative Banks and the Crisis of the Early 2000s. In Boonstra, W., Mooij, J. (Eds), *Co-operative Banking in Times of Crisis*, Rabobank, forthcoming. Retrieved From <http://www.jeodonline.com/sites/jeodonline.com/files/articles/2012/12/21/jeodjones-kalmieconomiesofscaleve rsusparticipationaco-operativedilemma.pdf>
- Lab-oyan, L. P (2018). Issues and challenges confronting cooperatives. Retrieved from <http://bagiuoheraldexpressonline.com>
- Martinez-Campillo, A., Cabeza-García, L., & Marbella-Sanchez, F. (2013). Responsabilidad social corporativa y resultado financiero: Evidencias sobre la doble dirección de la causalidad en el sector de las cajas de ahorros. *Cuadernos de Dirección y Economía de la Empresa*, 16(1), 54– 68. Retrieved from <https://search.proquest.com>
- Olabisi, T. A., MacDonald, U. U., & Emmanuela, A. O. (2015). Effect of cooperative membership on the economic empowerment of women in Osun State of Nigeria. *International journal of Business and economics research*, 4(2), 21-29.
- Pache, A. C., & Santos, F. (2013). Inside the hybrid organization: Selective coupling as a response to competing institutional logics. *Academy of Management Journal*, 56, 972–1001. Retrieved from <https://search.proquest.com>
- Saxena, A., & Khanna, U. (2013). Advertising on social network sites: A structural equation modelling approach. *Vision*, 17(1), 17-25.
- Soni, K. A. (2013). A study on human resource development in cooperatives. [https://www.researchgate.net/publication/235956655\\_a\\_study\\_on\\_human\\_resource\\_development\\_in\\_cooperatives](https://www.researchgate.net/publication/235956655_a_study_on_human_resource_development_in_cooperatives) [accessed Oct 18 2018].

## **PEDAGOGICAL Content Knowledge, Online Learning Readiness, and Practice Teaching Performance of Mathematics Pre-Service TEACHERS**

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### **ABSTRACT**

The study determined the relationship among pedagogical content knowledge, online learning readiness, and practice teaching performance of the mathematics pre-service teachers. A descriptive-correlational approach was used in the study. Complete enumeration was utilized in choosing the mathematics pre-service teachers from the Province of Davao de Oro as respondents. An adapted set of questionnaires were used to obtain the data. The study revealed that the pedagogical content knowledge and online learning readiness among the mathematics pre-service teachers were oftentimes observed and evident. Also, it was revealed that the practice teaching performance of the mathematics pre-service teachers sometimes met the expectations. Additionally, no significant relationship was seen between the pedagogical content knowledge and practice teaching performance among the mathematics pre-service teachers. In this study, it was also revealed that there was no significant relationship between online learning readiness and practice teaching performance among mathematics pre-service teachers. However, it could be noted that among the indicators of online learning readiness, self-directed learning had a significant relationship to the practice teaching performance of the mathematics pre-service teachers.

**Keywords:** Education, pedagogical content knowledge, online learning readiness, practice teaching performance, descriptive-correlational, Philippines

### **INTRODUCTION**

The tertiary institutions are currently pushed to retool and innovate to continue their operation. Online learning is not foreign anymore to the 21st-century era, and colleges and universities plan to utilize this to deliver their mission of quality and excellent instruction and formation (Chaturvedi et al., 2021). However, according to Hew et al. (2020), going online is not easy, especially for mathematics pre-service teachers in this pandemic. It has been reported in the study of Kosar (2021) that the pre-service mathematics teachers, during the pandemic, were not feeling ready for online learning for the first year of teaching as they could not practice teaching and complete their practicum in their placement schools thereof. In addition, Laguna (2020) revealed that they could not complete their Practice Teaching in the cooperating schools for education students to be deployed and receive teaching experience.

In Turkey, Barak et al., (2020) demonstrated in their study that the pre-service teachers had to complete distance education as a result of the outbreak of the COVID-19 pandemic did not help them enhance their professional learning aside from learning professional regulations. Furthermore, Bonk et al. (2016) stated that in the Philippine context, to adapt to the current situation, the disease epidemic has embraced a sensitive challenge of achieving learning through alternative education. The Department of Education (DepEd) has used multiple learning modes, including online, modular, and blended learning modalities (Tuscano, 2020). Not only teachers but also pre-service teachers faced a number of issues as a result of blended learning. Besides, in Koronadal City, the study by Anoba and Cahapay (2020) revealed that the pre-service teachers were slightly ready for the blended learning transition. This implies that the pre-service teachers have a moderate level of readiness to adapt to blended learning modality as a response to the impacts of the COVID-19 pandemic on instructional implementation.

The results of the studies conducted related to teachers' content, pedagogical knowledge (Widodo, 2017; Kuhn, 2016; Depaepe, 2013), readiness (Pan, 2019; Engin, 2017; Ngampornchai, 2016), and practice teaching performance (Zhao, 2017; Johnson, 2017; Meneses, 2017) showed that there was a significant relationship between the teachers' pedagogical content knowledge and practice teaching performance and online learning readiness and practice teaching performance.

However, most of the studies on pedagogical content knowledge, online learning readiness, and practice teaching performance were conducted during the pre-pandemic period. Moreover, studies related to practice teaching performance are usually paired with variables such as beliefs and attitudes (Ikitde, 2015; Blazar, 2016; Kaymakamoglu, 2018). This current study will have a significant impact on tertiary institutions as it was done in a timely situation in this time of pandemic to come up with a more valid, reliable, and strong result that will determine the status of the mathematics pre-service teachers' pedagogical content knowledge, readiness, and practice teaching performance (Govindarajan et al., 2020). As a result of the pandemic, practice teaching has been converted into a virtual environment, resulting in new dimensions of teaching practicum. Pre-service teachers gained a new teaching practicum experience due to the additional aspects. Thus, Chaturvedi et al. (2021) pointed out that knowing their pedagogical content knowledge, readiness, and practice teaching performance will make an impact to help them prepare for the teaching profession.

## **THEORETICAL FRAMEWORK**

This study was anchored on the following theories: Kolb's (1984) **Theory of Experiential Learning** and Shulman's **Theory of Pedagogical Content Knowledge** (1986). These theories help and support the research study. Kolb defines the theory of experiential learning as to how an individual acquires knowledge from the experience of understanding and incorporating it into their experience (Kolb, 1984). The theory shows how teacher interns selected technology and materials suitable for online teaching experiences. This theory also allows teacher interns to acquire their actual teaching knowledge. This helps them gained the methodologies through their experiences on how to execute and manage online lessons. In this study, the concepts and principles learned by the mathematics pre-service teachers during their preparatory years will be applied in the classroom as part of their practice teaching

journey to see whether they have a good grasp of the learned concepts and principles. According to Lee Shulman's Theory of Pedagogical Content Knowledge (1986), it was stated that pedagogical content knowledge is the interpretations and modifications of the subject-matter knowledge by teachers in the context of promoting student learning. The special form of an educator's professional knowing and understanding is pedagogical content knowledge, which is a unique blend of content and pedagogy that is uniquely constructed by instructors. In addition, it is made up of integrated knowledge that represents teachers' cumulative wisdom in the areas of pedagogy, students, subject matter, and curriculum. In this study, the researcher looked at how the mathematics pre-service teachers blend content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction during their practice teaching journey.

## **METHODOLOGY**

### **Research Design**

This quantitative study utilized a descriptive-correlational design. Quantitative research, according to Creswell (2012), is the process of gathering, analyzing, interpreting, and writing a study's findings. Leedy et al., (2001) also agreed that quantitative research is specific in its surveying and experimentation, as it builds upon existing theories. The methodology of a quantitative research maintains the assumption of an empiricist paradigm. Moreover, Cooper et al., (2001) stated that the research itself is independent of the researcher. As a result, data is used to objectively measure reality. Quantitative research creates meaning through objectivity uncovered in the collected data. Descriptive-correlational design was utilized in this study in determining the extent to which different variables are related to each other in the population of interest (Lomax et al., 2013). It is a non-experimental form of research in which researchers use the correlational statistic to describe and measure the degree of association between two or more variables (Creswell, 2012). It tests whether the increase or decrease of one variable correlates to the increment of another variable (Tan, 2014). Additionally, this correlation research investigated a range of factors, including the nature of the relationship between the variables and the theoretical model that might be developed and tested to explain this resultant correlation. It involves testing null hypothesis to see the statistical significance of the relationship of the two variables (Price et al., 2008). The research design utilized in this study is appropriate since the researcher aimed to know the relationship of pedagogical content knowledge and practice teaching performance and the online learning readiness and practice teaching performance of the mathematics pre-service teachers.

### **Place of the Study**

The research locale of this study was the state and local colleges of the Province of Davao de Oro. The first school of this study was a state college in the Province of Davao de Oro that offers education, business, agriculture, and criminology programs. The said institution has four campuses (A, B, C, and D), with a population of approximately 4,000 students, situated at the neighboring municipalities. The state

college is a neophyte institution that exists for more than seven years now and tagged by the Professional Regulation Commission as a top performing school nationwide in the board examination for teachers during the Licensure Examination for Teachers last September 2018 and March 2019. The locale was chosen since it is where mostly the students enroll who want to become teachers in the future. Moreover, the locale offered a Teacher Education Program, particularly the degree Bachelor of Secondary Education major in Mathematics, which is the main focus of this research study.

## Respondents

The research respondents of the present study were the 155 mathematics pre-service teachers of the state and local universities and colleges of the Province of Davao de Oro. In this study, probability sampling specifically complete enumeration was used. In this technique, every member of the population has an equal chance of being selected (Kuper et al. 2008). The respondents were chosen because of the fact that they were the pre-service teachers of these colleges in this academic year that helped this study to identify their pedagogical content knowledge and their online learning readiness. Thus, the students who were not pre-service teachers were not allowed to participate in this study. In this study, the researcher aimed to determine the level of pedagogical content knowledge, online learning readiness, and practice teaching performance of the mathematics pre-service teacher of these state and local universities and colleges.

## Statistical tools

The collected data were analyzed to determine the level of teacher's pedagogical knowledge and beliefs, teacher's online learning readiness, and practice teaching performance, as well as the significance of the three variables. **Mean** was used to determine the level of teacher's pedagogical knowledge and beliefs, teacher's readiness, and practice teaching performance of the mathematics pre-service teachers. **Standard deviation** was used to calculate and indicate the extent of deviation for the group as a whole. **Pearson Product Moment Correlation** was used to measure the significant relationship teacher's pedagogical knowledge and beliefs, teacher's readiness, and practice teaching performance of the mathematics pre-service teachers.

## RESULTS AND DISCUSSION

### Level of Pedagogical Content Knowledge of Mathematics Pre-Service Teachers

The level of pedagogical content knowledge of the mathematics pre-service teachers as reflected in Table 1 is high with an over-all mean of 3.86. It means that the pedagogical content knowledge is oftentimes evident to the mathematics pre-service teachers. This illustrates that mathematics pre-service teachers possessed interconnected domains of knowledge and pedagogy that are useful in their teaching careers. In addition, the standard deviation of the pedagogical content knowledge was 0.52 which showed that the students' consistency of responses about their pedagogic content knowledge vary minimally.

**Table 1**  
*Level of Pedagogical Content Knowledge of Mathematics Pre-Service Teachers*

<b>Indicators</b>	<b>Mean</b>	<b>SD</b>	<b>Description</b>
Pedagogic Knowledge	3.69	0.53	High
Content Knowledge	3.97	0.60	High
Pedagogical Content Knowledge	3.93	0.58	High
<b>Overall Mean</b>	<b>3.86</b>	<b>0.52</b>	<b>High</b>

The results of this study are in support of the study conducted by Nalam (2017) which revealed in his findings that the general degree of self-assessed mathematical topic understanding was high. This suggests that teachers frequently demonstrated content expertise. All of its mathematical concepts, mathematical procedures, communication, and relationships scored well.

The indicator with the highest mean is content knowledge. The means of the content knowledge statements ranged from 3.66 to 4.21. This illustrates that the mathematics pre-service teachers understood the subject matter to be learned or taught. This signifies that they are well-versed in their subject matter. The results of this support the claims of Hill (2005) which states that in order to be effective in the classroom, instructors must develop kinds of content knowledge that go beyond fundamental material proficiency. The notion that teachers must be able to comprehend and apply knowledge in ways that are unique to teaching. In addition, Phelps (2014) revealed that content knowledge is an understanding of how distinct content ideas are connected across the content domain, with more fundamental or basic concepts frequently coupled to more complicated or advanced ideas. Meanwhile the indicator with the lowest mean is pedagogic knowledge. The means of the pedagogic knowledge statements ranged from 3.54 to 3.85. Moreover, the category mean of pedagogic knowledge was 3.69 described as high which means that the pedagogic knowledge among the mathematics pre-service teacher was oftentimes evident. This illustrates that the mathematics pre-service teachers demonstrate an in-depth understanding of teaching and learning processes and practices. Thus, mathematics pre-service teachers understand how students generate information and skills, as well as how they develop beneficial learning habits and attitudes. This result supports the idea of Acheampong and Furlong (2017) that a teacher with extensive pedagogical understanding understands how students generate information and skills, as well as how they develop beneficial learning habits and attitudes. As a result, knowing cognitive, social, and developmental theories of learning and how they apply to students in the classroom is required for pedagogical expertise.

### **Level of Online Learning Readiness of Mathematics Pre-Service Teachers**

The level of online learning readiness of the mathematics pre-service teachers as reflected in Table 2 is high with an over-all mean of 4.01. It means that the online learning readiness of the mathematics pre-service teachers are oftentimes observed to the mathematics pre-service teachers. This illustrates that the students had adopted to the current educational situation and despite the limited resources, they were ready to learn through the digital world. In addition, the standard deviation revealed 0.47 and it showed that the respondents' consistency of responses about their online learning readiness vary minimally.

**Table 2***Level of Online Learning Readiness of Mathematics Pre-Service Teachers*

	Mean	SD	Description
Computer/Internet Self-Efficacy	4.07	0.60	High
Self-Directed Learning	4.00	0.55	High
Learner Control	3.72	0.58	High
Motivation for Learning	4.45	0.61	Very High
Online Communication Self-Efficacy	3.78	0.67	High
<b>OVERALL MEAN</b>	<b>4.01</b>	<b>0.47</b>	<b>High</b>

The results of this study are in support of the Kolb's Theory of Experiential Learning (1984) which is defined as to how an individual acquires knowledge from the experience of understanding and incorporating it into their experience (Kolb, 1984). The theory shows that teacher should be ready and with that equipped with knowledge that they would be able to apply it in their chosen field. This theory also allows teacher interns to acquire their actual teaching knowledge. This helps them gained the methodologies through their experiences on how to execute and manage online lessons and be prepared in their teaching instruction.

The category motivation for learning got the highest mean among the categories of online learning readiness. It has a mean of 4.45 described as high, which means that motivation for learning is always observed. This illustrates that mathematics pre-service teachers had the impulse for deliberate action with an intended direction. As a result, it must be deduced from acts such as task selection, perseverance, effort, and achievement, or from what others say about themselves. The means of motivation for learning ranged from 4.42 to 4.52. Professionally engaged teachers are role models for effective learning. They analyze, assess, and expand their professional learning, both collaboratively and individually, by identifying their personal learning requirements (Avalos, 2016). When teachers value professional engagement, according to Danielson (2017), they show respect and professionalism in all of their contacts with students, colleagues, parents/carers, and the community. They are aware of the needs of parents/carers and can effectively communicate with them regarding their children's education. Meanwhile the category with the lowest mean is learner control. The means of the learner control ranged from 3.43 to 3.87. Categorically, *learner control* has a mean of 3.72 described as high which means that this is oftentimes observed by the mathematics pre-service teachers. This implies that mathematics pre-service teachers had instructional practices that allow them to have some control over the events of the lesson. Moreover, mathematics pre-service teachers directing their own learning implies that instructional control is delegated to them in order to accommodate their unique differences in order to maximize their gains. Learner control is found to be of direct benefit to online learning. Research by Taipjutorus (2012) found that online learning can be enhanced by giving learners control of their interactions. In the discussion of Scheiter (2014) it states that if learners have high levels of prior knowledge and receive additional instructional support to orient themselves in the learning environment and self-regulate their learning, the learner control principle suggests that giving them control over their instruction by allowing them to pace, sequence, and select information aids learning. Learner control, in

particular, has been proposed as a means of allowing active, constructive processing of instruction, increasing and maintaining desire to learn, enhancing the acquisition of self-regulatory abilities, and allowing learners to adjust education to their preferences and requirements.

### Level of Practice Teaching Performance of Mathematics Pre-Service Teachers

The level of practice teaching performance of the mathematics pre-service teachers is moderately high with an over-all mean of 89.31 as presented in Table 3 which means that the level of practice teaching performance of the mathematics pre-service teachers sometimes meets the expectations.

**Table 3**  
*Level of Practice Teaching Performance of Mathematics Pre-Service Teachers*

	Mean	SD	Description
Practice Teaching Performance	89.31	4.65	Moderately High

This illustrates that the practice performance of the mathematics pre-service teachers was only average in this time of flexible learning modality. There might be competencies that were not met during the delivery of the instruction. The standard deviation of 4.65 implies that the practice teaching performance of the mathematics pre-service teachers is quite varied.

In a study conducted by Baloran (2020), it was discovered that 80.38 percent of students agreed with the closure of schools during the COVID-19 pandemic, and 65.85 percent agreed with the extension of the opening of classes for the next semester due to the COVID-19 pandemic situation. However, 59.25 percent disapproved of the Online-Blended Learning Approach's methods. The main reason for these students' absence was a lack of internet access which is about 72.29 percent. Furthermore, according to Ja'ashan (2015), the majority of students that participated in online-blended learning had negative perceptions due to sluggish internet connectivity.

### Significance of the Relationship of Pedagogic Content Knowledge and Practice Teaching Performance and Online Learning Readiness and Practice Teaching Performance of Mathematics Pre-Service Teachers

Table 4 presents that there is no significant relationship between pedagogical content knowledge and the practice teaching performance ( $r = -0.026$ ,  $p < .05$ ) and online learning readiness and practice teaching performance ( $r = 0.07$ ,  $p < .05$ ) of the mathematics pre-service teachers. In one hand, the result of the correlation test shows that all of the domains of pedagogical content knowledge namely: pedagogic knowledge, content knowledge, and pedagogical content knowledge have no significant relationships with the practice teaching performance of the mathematics pre-service teachers as reflected by their p-values which are all greater than the set alpha value of .05.

**Table 4**

*Significance of Relationship of Pedagogical Content Knowledge and Practice Teaching Performance and Online Learning Readiness and Practice Teaching Performance of Mathematics Pre-Service Teachers*

	Practice Teaching Performance		
	r	p-value	Remarks
<b>Pedagogical Content Knowledge</b>	<b>-0.026</b>	<b>0.75</b>	<b>Not Significant</b>
<b>Online Learning Readiness</b>	<b>0.07</b>	<b>0.37</b>	<b>Not Significant</b>

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

This result contradicts the claims of Jacob et al. (2020), which states that teacher quality is a significant determinant in determining student achievement gains. Existing educational production function research may be limited in its conclusions due to inadequate explanations of teachers' knowledge, not only in terms of the magnitude of effects that teachers' knowledge has on students' learning, but also in terms of the types of teacher knowledge that matters most in producing students' learning outcomes. Teachers are expected to analyze and assess new knowledge that is important to their core professional activity, as well as to keep their profession's knowledge base up to date on a regular basis.

In the same vein, Gess-Newton (2020) stated that the teachers' pedagogical knowledge base comprises all of the cognitive knowledge needed to create effective teaching and learning settings. Educators get greater pedagogical content knowledge through suitable training and experience, which is considered as a continuum. The teacher's pedagogical method, without which the instruction would look to the students — the flaws of traditional approach, which is in contrast to pedagogical knowledge — determines the success or failure in the process of teaching a particular topic. As Hiebert (2020) emphasized that actual teaching should comprise not just the teacher's skilled demonstration of his or her expertise, but also the capacity to help the pupils in understanding the content of the information in a meaningful way. This demonstrates the relevance of PCK in any classroom.

The result of the correlation test shows that four of the domains of online learning readiness namely computer/internet self-efficacy, learner control, motivation for learning, and online communication self-efficacy have no significant relationships with the practice teaching performance of the mathematics pre-service teachers as reflected by their p-values which are all greater than the set alpha value of .05. However, among the domains of online learning readiness, only the self-directed learning has a significant relationship with the practice teaching performance of the mathematics pre-service teachers ( $r = .16, p < .00$ ). This means that the increase in the level of self-directed learning would also likely increase the practice teaching performance of the mathematics pre-service teachers.

The result of this study supports the study of Gay (2016) which looked at how online instructors' e-learning readiness was assessed before, during, and after the course was delivered. They discovered that online instructors had a pressing need

for online support desk services. Faculty members do not feel well prepared to teach online, according to Lichoro (2015). However, identifying competences to equip faculty to teach online remains a priority, and by doing so, we will be able to provide recommendations on how to do so. Additionally, Downing and Dyment (2013) looked at teacher educators' readiness and preparation for, as well as their perceptions of, preparing preservice teachers in a totally online context, and discovered that instructors thought online teaching was time demanding. According to the research, professors new to online teaching felt unprepared to teach online and required technical and pedagogical support, as well as time-management measures.

## CONCLUSIONS

Based on the findings of the study, the following were the conclusions: The level of pedagogical content knowledge of the mathematics pre-service teachers was high which means that the pedagogical content knowledge is oftentimes evident to the mathematics pre-service teachers. Notably, among the pedagogic content knowledge, content knowledge got the highest category mean described as high which means that the content knowledge was oftentimes evident especially in knowing the basic definitions in their lessons. The level of online learning readiness of the mathematics pre-service teachers was high which means that the online learning readiness of the mathematics pre-service teachers were oftentimes observed to the mathematics pre-service teachers. Notably, among the aspects of online learning strategies, motivation for learning got the highest category mean described as very high which means that motivation for learning was always observed by the mathematics pre-service teachers especially in being open to new ideas. The level of practice teaching performance of the mathematics pre-service teachers was moderate which means that the level of practice teaching performance of the mathematics pre-service teachers sometimes met the expectations. In this study, it can be noted that there was no significant relationship between the pedagogical content knowledge and practice teaching performance and online learning readiness and the practice teaching performance of mathematics pre-service teachers. The result of the correlation test showed that all of the domains of pedagogical content knowledge namely pedagogic knowledge, content knowledge, and pedagogical content knowledge had no significant relationships with the practice teaching performance of the mathematics pre-service teachers. On the other hand, the result of the correlation test showed that four of the domains of online learning readiness namely computer/internet self-efficacy, learner control, motivation for learning, and online communication self-efficacy had no significant relationships with the practice teaching performance of the mathematics pre-service teachers. However, among the domains of online learning readiness, only the self-directed learning had a significant relationship with the practice teaching performance of the mathematics pre-service teachers.

## REFERENCES

Ávalos, B.; Valenzuela, J.P. Education for all and attrition/retention of new teachers: *A trajectory study in Chile*. <https://dx.doi.org/10.1016/j.ijedudev.2016.03.012>

- Baloran, E. (2020). Knowledge, attitudes, anxiety, and coping strategies of students during COVID-19 pandemic. <https://link.springer.com/article/10.1007/s12144-021-01833-1>
- Barak, M., & Dori, Y. J. (2009). Enhancing higher order thinking skills among in-service science teachers via embedded assessment. <https://doi.org/10.1007/s10972-009-9141-z>
- Bonk, A., Kinder, M., Enters, D., Grosjean, M., Meyer-Jacob, C., & Tylmann, W. (2016). Sedimentological and geochemical responses of Lake Żabińskie (north-eastern Poland) to erosion changes during the last millennium. *Journal of Paleolimnology*, 56, 239-252.
- Cahapay, M. B. (2020). Rethinking education in the new normal post-COVID-19 era: A curriculum studies perspective.
- Chaturvedi, S., Purohit, S. and Verma, M. (2021). Effective teaching practices for success during covid 19 pandemic: towards phygital learning. <https://doi.org/10.3389/feduc.2021.646557>
- Cooper, KM, & Brownell, SE. (2016). Coming out in class: challenges and benefits of active learning in a biology classroom for LGBTQIA students. *CBE-Life Sciences Education*. <https://doi.org/10.1187%2Fcbelife.16-01-0074>.
- Creswell, J.W. and Plano Clark, V.L. (2011) *Designing and Conducting Mixed Methods Research*. 2nd Edition. Sage Publications, Los Angeles.
- Danielson, C. (2017). *Enhancing Professional Practice: A Framework for Teaching*, 2nd ed. Association for Supervision and Curriculum Development: Alexandria.
- Depaepe, F., Verschaffel, L., & Kelchtermans, G. (2013). Pedagogical content knowledge: *A systematic review of the way in which the concept has pervaded mathematics educational research*. *Teaching and teacher education*, 34, 12-25.
- Doucet, A., Netolicky, D., Timmers, K., & Tuscano, F. J. (2020). about Pedagogy in an Unfolding Pandemic. *Education International and UNESCO*, 2.
- Govindarajan, V. and Srivastava, A. (2020) What the shift to virtual learning could mean for the future higher ed. <https://hbr.org/2020/03/what-the-shift-to-virtual-learning-could-mean-for-the-future-of-higher-ed>.
- Finkelhor, D., & Ormrod, R. K. (2001). Factors in the underreporting of crimes against juveniles. *Child Maltreatment*, 6(3), 219-229.
- Furlong, A. (Ed.). (2017). *Routledge handbook of youth and young adulthood*. Abingdon: Routledge.

- Jacob, O. N., Abigeal, I., & Lydia, A. E. (2020). Impact of COVID-19 on the higher institutions development in Nigeria. *Electronic Research Journal of Social Sciences and Humanities*, 2(2), 126-135.
- Hill, HC, Rowan, B, Ball, DL. (2005). Effects of teachers' mathematical knowledge for teaching on student achievement. *American Educational Research Journal*, 42(2), 371–406. <https://doi.org/10.3102%2F00028312042002371>.
- Hew, K.F., Jia, C., and Gonda, D.E. (2020). Transitioning to the “new normal” of learning in unpredictable times: pedagogical practices and learning performance in fully online flipped classrooms. <https://doi.org/10.1186/s41239-020-00234-x>.
- Ikitde, G. A., & Ado, I. B. (2015). Attitude of Students towards Teaching Practice Exercise in Nigerian University: A Case Study of University of Uyo, Uyo. *Journal of Education and Practice*, 6(25), 69-74.
- Kaymakamoglu, S. E. (2018). Teachers' Beliefs, Perceived Practice and Actual Classroom Practice in Relation to Traditional (Teacher-Centered) and Constructivist (Learner-Centered) Teaching (Note 1). *Journal of Education and Learning*, 7(1), 29-37.
- Kolb, D. (1984). *Learning Styles and Experiential Learning Cycle*. <https://www.simplypsychology.org/learning-kolb.html>
- Lagua, B. (2020). *Teaching in the new normal*. <https://www.manilatimes.net/2020/10/30/business/columnists-business/teaching-in-the-new-normal/788762>
- Nalam, R. (2017). Self-assessed content knowledge in mathematics and instructional competence of teachers in Davao del Sur. <https://ejournals.ph/article.php?id=13483>.
- Oswald, D. R. (2008). The determinants and value relevance of the choice of accounting for research and development expenditures in the United Kingdom. *Journal of Business Finance & Accounting*, 35(1-2), 1-24
- Phelps, G., Weren, B., Croft, A., & Gitomer, D. (2014). Developing content knowledge teaching assessments for the measures of effective teaching study. doi:10.1002/ets2.12031.
- Taipjutorus, Widchaporn. (2012). Investigating A Relationship Between Learner Control and Self-Efficacy In An Online Learning Environment. *Journal Of Open, Flexible And Distance Learning*. 16. 56-69.
- Tan, E. (2014). Human capital theory: A holistic criticism. *Review of educational research*, 84(3), 411-445.

- Widodo, S. A. (2017). Development of teaching materials algebraic equation to improve problem solving. *Infinity Journal*, 6(1), 59.
- Zhao, H., & Zhang, X. (2017). The influence of field teaching practice on pre-service teachers' professional identity: A mixed methods study. *Frontiers in psychology*, 8, 1264.
- Zhao, R., Yan, C., Yu, J., & Li, X. (2013). Improvement of Baldwin–Lomax turbulence model for supersonic complex flows. *Chinese journal of Aeronautics*, 26(3), 529-534.



