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EXPLORING STUDENT INTERNSHIP PROGRAM: A SITUATION ANALYSIS AND ASSESSMENT OF FACTORS FOR INSTITITUTIONAL POLICY IMPROVEMENT

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ABSTRACT

Situation analysis and critical assessment of Student Internship Program in Mountain Province State Polytechnic College (MPSPC) using Input-Process-Output-Outcome (IPOO) model of research highlights this study in the implementation of consistent and effective cooperative education. It adopted an instrument anchored on the factors affecting student internship checklist and interview protocols deduced pertinent data from student interns. Result shows that student interns described the extent of effect of factors affecting the student internship program in MPSPC as high extent. While cooperating agencies generally rated the performance level of the student interns as "meets standards". Overall, the factors are significantly related to the performance level of the student interns.

Qualitatively, verbal comments and interview responses provided good qualities of student internship that needs to be sustained for better implementation of theory-practice framework. However, the inputs need enhancement to help train scientifically literate students ultimately reach the goal of sustainable development and lifelong learning. The recommendations are: Conduct strategic planning to consider the results of the situation analysis. To strenghthen the orientation program and impart its thrust and highlight the factors affecting student internship. To conduct skills trainings and seminars; and painstakingly monitor the students' performance geared towards global competiveness. The monitoring will be improved through the development of efficient and effective online monitoring system. Moreover, it is essential to appropriately select the venues for the deployment of student interns- related to course specialization, skills and experiences; and availability of facilities and equipment alongside pool of qualified internship supervisors. To consider provisions of benefits and incentives as motivation and commitment of parties involved. Finally, to review and amend the existing institutional policy for student internship.

Keywords: student internship, course specialization, situation analysis, assessment, factors

BACKGROUND OF THE STUDY

The Commission on Higher Education prepared guidelines for Student Internship Abroad Program (SIAP) for all programs with practicum subject under CHED Memorandum Order (CMO) no. 24 series of 2009, Student Internship Program in the Philippines (SIPP) for all programs with practicum subject under CHED Memorandum Order (CMO) No. 23 Series of 2009. On the other hand, the Student Internship Program in the Philippines program aims to provide tertiary students enrolled in Higher Education Institutions (HEIs) in the Philippines the opportunity to acquire practical knowledge, skills, and desirable attitudes and values in reputable establishments/industries.

Further enhance the students' work competencies and discipline as they relate to people in the workplace; promote competitiveness of students through their training; strengthen and enrich the degree programs in HEIs; provide opportunities to learn from and network with experienced professionals; handle new challenges and complex tasks or problems; and identify future career directions and become candidates of future job opening.

Mountain Province State Polytechnic College offers various degree programs that cater to the enhancement of knowledge, skills and values through exposure in the actual workplace. This is in line with its goal of producing locally and globally competitive graduates with excellent and quality competencies and commitment for service. However, there are problem gaps in the policy that needs to be addressed or enhanced for the better delivery of the the student internship programs.

Another related issue of continuing concern is the kind of educational preparation related to industry work. An educational forum conducted by the Department of Labor and Employment in Mountain Province on current problem identifies its key role in bridging the gaps between manpower requirements and present acquired skills. It is the basic foundation of an individual in facing a very competitive global labour market.

Moreover, for the past years, the Commission on Higher Education (CHED) has been closely working with industry stakeholders to address the job mismatch. Industry representatives are being involved in the development of curricula and standards; student internship programs, apprenticeships, faculty immersion, assessment-based talent development and other activities. It **is the thrust of every higher educational institution to assess the professional relevance of the program being offered.**It is in this context that this study will be made to conduct situation analysis and assess the factors that affect the student internship programs in MPSPC.

CONCEPTUAL FRAMEWORK

One abridged approach to the framework of the student internship is anchored on a solid philosophical foundation of John Dewey's learning by doing influences this study. Education provides a balanced development of mental, social, moral, spiritual, and physical powers of man to prepare him for a "complete living". Therefore, education should help man to internalize such philosophy by facilitating experiential learning. Student internship is often de-scribed as a time when theory is applied to real-life setting; we believe that the relationship between theory and practice is more complex. It is further explained that theories are transformed through their application, and one will be actively involved in that process.

The course of the research contains four steps using Input-Process-Output-Outcome (IPOO) model of research: 1) Conduct organizational analysis of student internship programs in MPSPC 2) Task analysis on the factors that affects the work integrated learning programs; 3) Assessed factors that affect the student internship programs in MPSPC; and 4) Recommend institutional policy on student internship programs, particularly on the improvement of the MPSPC OJT manual of the College.

STATEMENT OF THE PROBLEM

The main purpose of the study is to assess the factors that affect the student internship programsin MPSPC.Specifically , the study seeks to answer the following problems:

1. What are the Strengths, Weaknesses, Opportunities, Threats (SWOT) of the student internship programs in MPSPC?
2. What is the extent of effect of factors affecting the student internship programs in MPSPC in terms of the following: a) work attitude, b) work habit, c) competence, d) personality and appearance, e) linkage, f) cooperating agency, g) benefits and incentives and h) training evaluation?

    2.1 Is there a significant difference in the extent of factors affecting the student internship programs in MPSPC in terms of the following: a) work attitude, b) work habit, c) competence, d) personality

and appearance, e) linkage, f) cooperating agency, g) benefits and incentives and h) training evaluation according to program and sex of student interns?

3. What is the level of performance of the student internship programs in MPSPC given by the cooperating agencies?

    3.1 Is there a significant difference on the level of performance of the student internship programs in MPSPC given by the cooperating agencies according to program and sex of student interns?

4. What is the correlation of performance to the factors affecting the student internship programs in MPSPC?

5. What policy ammendments to the MPSPC OJT Manual 2014 can be crafted to enhance the student internship programs of MPSPC student interns?

Null Hypotheses

There is no significant difference in the extent of factors affecting the student internship programs in MPSPC in terms of the following: a) work attitude, b) work habit, c) competence, d) personality and appearance, e) linkage, f) cooperating agency, g) benefits and incentives and h) training evaluation acoording to program and sex.

There is no significant difference on the level of performance of thestudent internshipprograms in MPSPC given by the cooperating agencies according to program and sex.

There is no significant correlation of performance to the factors affecting the student internship programs in MPSPC.

METHODOLOGY

The researcher utilized a descriptive method of research in conducting the study. The study was conducted in Mountain Province State Polytechnic

College in the Cordillera Administrative Region, in all curricular programs with work integrated learning in the two campuses- Bontoc and Tadian, for Academic Year 2014-2015. This study was limited only to assess the factors that affect the student internship in MPSPC, particularly on the following factors: work attitude, work habit, competence, personality and appearance, linkage, cooperating agency, benefits and incentives and training evaluation according to program and sex. The researcher adopted the survey questionnaire used by Dr. Rodolfo John Teope of the University of Manila, Philippines in a similar study.It also employed task analysis/ unstructured interviews to gather first-hand data and information that wererelevant in the study. Conducted SWOT analysis through the accomplishment of the SWOT analysis form distributed to the supervising intructors/professors who handled student internship programs in MPSPC to deduce information regarding experiences as reflected according to strengths, weaknessess, opportunities and threats of the program. This study also used the documentary materials to provide supplemental facts such as evaluation forms, narrative or accomplishment reports and journals.

Statistical Treatment

Likert Scale was adapted to quantify the responses of the respondents in every item on the factors that affect the student internship programs in MPSPC.F-test was used to determine if there is a significant difference on the perceptions of the respondents regarding the student internship programs in MPSPC according to program. T-test for independent means was used to determine if there is a significant difference on the perceptions of the respondents regarding the student internship programs in MPSPC according to sex. Pearson Product of Moment Coefficient of Correlation was used to determine if there is a relationship between performance and the factors affecting the student internship programs. Frequency Count and Percentage, this statistical tool was used to determine the level of the student internship programs in MPSPC given by the cooperating agencies.

RESULTS AND DISCUSSION

SWOT Analysis

SWOT analysis a basic straight forward model in environmental scanning (situation analysis) helped MPSPC identified four key elements: strengths, weaknesses, opportunities, and threats, as a basis for planning, to improve the implementation of the student internship programs in the College.

Strengths

The strengths are the responsibilities and skills MPSPC feel most confident in performing. These are internal attributes made MPSPC performed the tasks defined in the student internship programs. In assessing the strengths of the student internship programs, the following are revealed: 1. Competent student interns; 2. Pool of qualified and dedicated faculty members who supervise the student interns; 3. Institutionalized MPSPC OJT Manual; and 4. positive attitudes of cooperating agencies towards MPSPC student interns.

Weaknesses

There are internal attributes that may affect the ability to perform the required tasks. In the student internship programs, these are the things to be improved or should be avoided. The College has been decisive and compliant to oversight committees and accreditation in the implementation of student internship programs. However, it shows that there are internal contraints that affected the ability to perform the required tasks in the execution of the student internship programs as follows: 1. Inconsistent provisions of gender and development policies in the MPSPC OJT Manual to the Magna Carta for women; 2. Limited facilities and equipments of the College; 3. Financial constraints / difficulties experienced by student interns; 4. Lack of oral communication skills; 5. Non-congruence between the acquired level of competence in job work experience due to the absence of workplan; 6. Absence of the provisions of insurance,overtime, benefits and incentives for student interns in the institutionalized MPSPC OJT Manual; and 7. Absence of online monitoring system.

Opportunities

These are external conditions or trends that can assist in the development of the work integrated learning. In the College, various opportunities for student internship programsare available: 1. Availability of cooperating agencies and industries with specialized trainings (City, National and International Linkages); and 2. Pool of qualified internship supervisors/ trainers in the different cooperating agencies; 3. Scholarship grant / free tuition fee for internship supervisors.

Threats

It was revealed that there are threats that hindered implementers in acquiring the opportunity. These external conditions are obstacles in administering the student internship programs. In the SWOT analysis, the following were the threats in the student internship programs: 1. Tight policy of cooperating agencies; 2. ASEAN integration and globalization; and 3. Limited facilities and equipments of eooperating agencies.

Extent of Effect of Factors Affecting the Student Internship Programs in MPSPC

Table 1. Extent of Effect of Factors Affecting the Student Internship Programs in MPSPC

Programs	Mean	DE
A. Work Attitude of Student Interns	3.43	VHE
B. Work Habit of Student Interns	3.34	VHE
C. Competence of Student in Interns	3.37	VHE
D. Personality and Appearance of Student Interns	3.48	VHE
E. Linkage	3.46	VHE
F. Cooperating Agency	3.32	VHE
G. Benefits and Incentives for Studen Interns	2.07	LE
H. Training Evaluation	3.04	HE
Grand Mean	**3.19**	**HE**

It is gleaned from the table that the grand mean is 3.19 described as high extent. The program under personality and appearance is rated as the highest with a weighted mean of 3.48 described as very high extent. Next is linkage with a weighted mean of 3.46 described also as very high extent. On the other hand, benefits and incentives were rated as the lowest with a weighted mean of 2.07 described as low extent.The findings mean that the identified factors affecting the student internship programs in MPSPC regarded as high extent on the effects have great impact towards the implementation of the program. The success or outcomes in the student internship programs are dependent on the factors identified.

Comparison of Mean Perceptions of the Respondents on the Effect of Factors Affecting the Student Internship Programs in MPSPC According to Program

Statistical analysis using F-test analysis of variance reveals a significant result. This implies that

Table 1.1 Comparison of Mean Perceptions of the Respondents on the Effect of Factors Affecting the Work Integrated Learning Programs in MPSPC According to Program

COURSE	MEAN	DE	F-ratio	P-value	F-critical	Finding
AHRM	3.28	VHE				
AUTO	3.02	HE				
BEED	3.32	VHE				
CIVIL	3.29	VHE				
CRIM	3.10	HE				
IT	3.55	VHE				
BST	2.75	HE	7.844	0.000	2.216	SIGNIFICANT
BSA	3.18	HE				
BSBA	3.30	VHE				
BSED	3.21	HE				
BSHRM	3.27	VHE				
BSN	2.97	HE				
BSOA	3.43	VHE				

there is a significant difference on the extent of effect

of factors affecting the student internship programs in MPSPC as perceived by the respondents according to program. This means that with the diversity of the programs, the perception of student interns from each program differ from each other. The effect of factors are dependent on the type of program specialization and objective.

Further, Post F-test using Scheffe's test revealed that most of the students grouped according to the program where they belong perceived the effect of factors affecting the student internship programs in MPSPC on the same level as not sigificant. However, only 3 programs differ in perceptions significantly. The respondents from the IT Department differ significantly from the Automotive Department. Aside from that, the IT differ significantly from the Criminology Department and IT differ significantly from the Nursing Department.

Comparison of Mean Perceptions of the Respondents on the Effect of Factors Affecting the Student Internship Programs in MPSPC According to Sex

Statistical analysis using T-test for independent groups reveal a significant result. This implies that there is a significant difference on the mean perceptions of the respondents grouped

Table 1.2 Comparison of Mean Perceptions of the Respondents on the Effect of Factors Affecting the Student Internship Programs in MPSPC According to Sex

Factors	Female	Male	T-Value	P-Value	Critical Value	Findings
A. Work Attitude	3.44	3.43	0.418	0.676	1.964	NOT SIGNIFICANT
B. Work Habit	3.37	3.31	1.476	0.140	1.964	NOT SIGNIFICANT
C. Competence	3.39	3.35	0.891	0.373	1.964	NOT SIGNIFICANT
D. Personality & Appearance	3.52	3.41	2.585	0.010	1.964	SIGNIFICANT
E. Linkage	3.53	3.47	2.173	0.030	1.964	SIGNIFICANT
F. Cooperating Agency	3.34	3.29	1.369	0.172	1.964	NOT SIGNIFICANT
G. Benefits and Incentives	2.07	2.06	0.072	0.943	1.964	NOT SIGNIFICANT
H. Training	3.14	2.89	4.217	0.000	1.964	SIGNIFICANT
OVERALL	3.23	3.15	2.844	0.005	1.964	SIGNIFICANT

according to sex. As shown in the table, the female respondents rated the different programs with a group mean of 3.23 compared to their male counterparts with a group mean of 3.15.

As gleaned from the table, personality and appearance, linkage and training were significantly rated to be different from both groups of respondents. The other programs were rated on the same level. This proves that there is a significant difference on the mean perceptions

perceptions of the respondents grouped according to sex in terms of the extent of factors affecting the student internship programs in MPSPC.

Performance Level of the Student Internship Programs in MPSPC Given by the Cooperating Agencies

Table 2. Performance Level of the Student Internship Programs in MPSPC Given by the Cooperating Agencies

Scale	Arbitrary Value	Descriptive Rating	Frequency	Percentage
4	92%-100%	Exceeds Standards	237	40.24
3	84%-91%	Meets Standards	289	49.07
2	75%-83%	Approaching Standards	61	10.36
1	Below 75%	Not Meeting Standards	2	0.34
TOTAL			589	100

Table 2 shows the performance level of the student internship programs in MPSPC. As gleaned from the table, 49.07% of the respondents belong to a description as meets standards, 40.24% belongs to exceeds standards and only 10.36% belongs to approaching standards. However, there is still 0.34% who belongs to a description of not meeting standards.

Comparison of Performance Level of the Student Internship Programs in MPSPC According to Program

Analysis of variance using F-test

Table 2.1 Comparison of Performance Level of the Student Internship Programs in MPSPC According to Program

COURSE	MEAN	DE	F-ratio	P-value	F-Critical	Findings
AHRM	94.43	ES				
AUTO	89.20	MA				
BEED	92.36	ES				
CIVIL	89.50	MA				
CRIM	89.55	MA				
IT	82.90	AS				
BST	81.50	AS	34.384	0.000	1.769	SIGNIFICANT
BSA	91.56	ES				
BSBA	91.37	MA				
BSED	90.84	MA				
HRM	91.00	MA				
BSN	80.33	AS				
BSOA	88.35	MA				

reveals a significant finding. This implies that there is a significant difference on the performance level of the respondents grouped according to program. As gleaned from the table, students from AHRM got the highest mean of 94.43 described as exceeds standards. This is followed by the BEED students with group mean of 92.36 and BSA with a group mean of 91.56. Both groups were rated as exceeds standards.

Post F-test using the Scheffe's test

reveals that BSN students significantly differ from the other students from the different programs or courses except IT and BST in terms of performance level given by their cooperating agencies. The IT students also have different performance level from the other departments except BST and BSN.

Comparison of Performance Level of the Student Internship Programs in MPSPC According to Sex of Student Interns

Statistical analysis using t-test for independent groups reveals a non-significant result. This suggests that there is no significant difference on the performance

Table 2.2 Comparison of Performance Level of the Student Internship Programs in MPSPC According to Sex of Student Interns

Sex	Mean	DE	T-value	P-value	T-Critical	Finding
Female	89.78	MS	0.543	0.587	1.964	NOT SIGNIFICANT
Male	89.57	MS				

level of the respondents when grouped according to their sexes. As gleaned from the table, both the groups of respondents have the same level of performance. Further, this proves that sex is not a guarantee that someone is better than the other in terms of performance level of student interns in the student internship program.

Relationship of Performance and the Factors Affecting the Student Internship Programs in MPSPC

Table 3. Relationship of Performance and the Factors Affecting the Student Internship Programs in MPSPC

FACTORS/GRADES	R-Value	CV	FINDINGS
A. Work Attitude	0.0891	0.0815	SIGNIFICANT
B. Work Habit	0.1229	0.0815	SIGNIFICANT
C. Competence	0.0875	0.0815	SIGNIFICANT
D. Personality and Appearance	0.0444	0.0815	NOT SIGNIFICANT
E. Linkage	0.0706	0.0815	NOT SIGNIFICANT
F. Cooperating Agency	0.1229	0.0815	SIGNIFICANT
G. Benefits and Incentives	-0.0786	0.0815	NOT SIGNIFICANT
H. Training Evaluation	0.0749	0.0815	NOT SIGNIFICANT
OVERALL	0.0831	0.0815	SIGNIFICANT

Table 3 shows the relationship of performance level and the factors affecting the student internship programs in MPSPC. As shown in the table, statistical analysis using Pearson Product Moment Coefficient of Correlation reveals that the overall mean of the factors is significantly related to the performance level of the students. There are four (4) factors which were significantly related to the performance level - work attitude, work habit, competence and cooperating agency. The other factors seen in the table were not significantly related to the performance level.

Implications of the Findings:

Student internship is always part of the Higher Education curriculum which aims to harness the knowledge, values and skills of the students before they partake to the challenges of the work environment. In trying to strengthen the quality assurance system in Philippine higher education, institutions of higher learning it implies then that we are mandated to upgrade higher education curricular offerings to international standards.

It is said that education is primarily concerned with the opening out to the world of the students so that they can choose their interests and mode of living, and career. It implies that education is not only limited to the degree an individual can attain however it must be accompanied by character, attitude, behavior and values that would significantly affects or influence his performance and productivity.

On the other hand, linkage and cooperating agencies are factors that need to be established by the institution in order to create better choice of avenues for the deployment of student interns based on their specialization. Moreover, the inter-institutional cooperation or linkage benefits those who participate in carrying out any program of activity; and through cooperation or linkage between industries/agencies/firms and school, a student intern will gain better understanding of various occupations.

CONCLUSION:
In the light of the findings of the study, the following conclusions are drawn.

1. Based on the SWOT analysis, the following are the strengths; MPSPC produced competent student interns, there is a pool of qualified and dedicated faculty members, there is the availability of institutionalized MPSPC OJT manual and positive attitudes of cooperating agencies towards MPSPC student interns. The weaknesses are: inconsistent provisions of gender and development policies in the MPSPC OJT Manual to the

Magna Carta for Women, limited facilities and equipment of the College, financial constraints / difficulties experienced by student interns, lack of oral communication skills, non-congruence between the acquired level of competence in their job work experience due to the absence of work plan, absence of the policies for the provisions of insurance, overtime, benefits and incentives for student interns, and the absence of online monitoring system. The opportunities are: the availability of cooperating agencies and industries with specialized trainings (city, national and international linkages) , pool of qualified internship supervisors / trainers in the different cooperating agencies, and scholarship grant / free tuition fee for internship supervisors. The threats are: tight policy of cooperating agencies, ASEAN integration and globalization, and limited facilities and equipment of cooperating agencies.

2. Generally there is a high extent on the effect of factors affecting the student internship programs in MPSPC. Personality, linkage, work attitude, competence, work habit, cooperating agency training evaluation were perceived as high extent; while the benefits and incentives as less extent.

There is a significant difference in the extent of factors affecting the student internship programs in MPSPC according to programs. This means that the identified factors has different impact or effect to the different programs.

There is a significant difference on the mean perceptions of the respondents grouped according to sex. This means that the sex of student interns has no relationship on the effect of factors affecting the student internship programs.

3. Generally the student interns "meet standards" in their performance level in the student internshipprograms in MPSPC.

There is a significant difference on the performance level of the respondents when grouped according to programs. This means that the performance level is different from each of the programs and it is dependent on the specialization and objectives.

There is no significant difference on the performance level of the respondents when grouped according to their sexes. This proves that sex is not a guarantee that

someone is better than the other in terms of performance in the student internshipprograms.

4. There is a significant relationship of performance and the factors affecting the student internship programs in MPSPC. This proves that the performance of student interns are affected by the factors affecting the student internship programs.

RECOMMENDATIONS

Based on the conclusions made, the following are the recommendations:

1. That the different departments of the College with student internship programs must conduct strategic management planning; to consider the results of the SWOT analysis (situation analysis) for the improvement of the implementation of the student internshipprograms in MPSPC, and the following are recommended:

   a. For the College management to consider the purchase of facilities and equipmentlike vehicles to be used in the student internshipprograms.

   b. The Student Service and Development Office to assist students interns through a linkage with the Department of Labor and Employment (DOLE) to avail of the Government Internship Program that provide incentives to the student interns; andthe Local Government Unit of Mountain Province for financial support to augment expenses of indigent but deserving student interns in their student internship programs.

   c. To review and amend the MPSPC OJT Manual 2014 to include institutional policies and guidelines on workplan, overtime, field works, insurance, and benefits and incentives.

   d. To the different departments to coordinate with the Office of the Resource Generation and Linkages to explore for additional cooperating agencies outside the province that provides trainings related to the course major of the students, and that are linked to global markets for easy access to the employability of graduates.

2. That the different departments to strengthen the pre-deployment orientation, and providing points for successful internship by emphasizing on the factors that affects the student internshipprograms.

3. To strengthen the areas needing improvement, these are augmented through the conduct of skills trainings and seminars in order to revitalize the knowledge and skills; and to conduct rigorous monitoring to further enhance performance, geared towards global competiveness. The monitoring may further be improved through the development of an efficient and effective online monitoring system.

4. To properly select the venue forthe deployment of student interns that is related to their course specialization, skills and experience to be gained, availability of facilities and equipments along with the pool of qualified internship supervisors; and maybe the provisons of benefits and incentives is an advantage, and other support that cooperating agencies provide.

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MORPHO-SYNTACTICANALYSIS OF THE WRITTEN DISCOURSE OF COLLEGE STUDENTS

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ABSTRACT

The study aimed to determine the morpho-syntactic errors on the written discourse of criminology students enrolled in an English Writing Class of JRMSU. Specifically, it determined to establish the significant difference in the morpho-syntactic errors committed by the respondents when they are categorized as to gender age and campus. The study revealed that the greater number of errors committed by the respondents in terms of morphology is yielded in affixes with 1,053 (28.44%) frequency counts and the least is in verb tense with 863 (23.31%) frequency counts. In terms of syntax, the predominance of errors was observed in subject-verb agreement with 1092 (22.20%) frequency counts and the least is in word order with 349 (7.09%) frequency counts. It was found out that there was ano significant difference in the morpho-syntactic errors committed by the respondents when they are grouped according to gender and age while there was a significant difference by campus. In the light of the findings the researchers are proposing a revision and enhancement of the syllabus and design a workbook to enhance writing competence among the criminology students.

INTRODUCTION

It is widely known that in a large number of settings, teaching English is associated with teaching grammar. Morphology and syntax emerge as two components of

grammar. In this case, morphology can be understood as the study of structure and formation of words, while syntax as the study of rules to combine words into phrases and phrases into sentences. In teaching English language, syntax and morphology are of great significance in L2 acquisition because how students' performances are monitored and evaluated, are based on their morphological and syntactic productions.

Writing is generally considered to be one of the active or productive skills of language usage. In JRMSU, writing English is significant in students' academic course of study as research work depends on it. It is needed for taking notes, describing objects or devices and writing essays, answering written questions, writing their compositions, writing experimental reports, etc. Further, the process of writing, specifically writing through a practical research task, also helps to develop the students' cognitive skills in acquiring the necessary strategies such as analyzing results of a research task, inferring from the significant differences observed in comparing means, frequencies For these reasons, writing has always been an essential aspect of the curriculum of English as a major, and for academic purposes.

During the writing process, it in inevitable that students committed mistakes or erros. These types of errors may include such errors as omission of plurals on nouns, verb tense or form, verbal, comparative and superlative degrees of adjectives. On the other hand, syntactic errors are those which disobey the phrase structure rules and, by this way, violate the formation of grammatically correct sentences. These errors can be exemplified as word order, subject-verb agreement, prepositions, articles, and relative clauses in sentences.

Review of Literature

Error Analysis gives us an insight into the strategies of language learning as Corder as cited by

Review of Literature

Error Analysis gives us an insight into the strategies of language learning as Corder as cited by Mahmoud (2010) said, these strategies can inform our teaching methods and bring them closer to the learning process, thus making for a learner-centered technique of language instruction. Thus, in addition to its traditional role in language pedagogy (i.e. error correction and remedial teaching), Error Analysis assumes the new role of bridging the gap between learning and teaching through strategy-based grammar instruction.

As stated by Brown (2007), there are two main sources of errors, namely, interlingual errors and intralingual errors. Interlingual (Interference) Errors are those errors that are traceable to first language interference. These errors are attributable to negative interlingual transfer. According to Kavaliauskiene (2009), transfer of errors may occur because the learners lack the necessary information in the second language or the attentional capacity to activate the appropriate second language routine.

As far as the intralingual errors are concerned, they result from faulty or partial learning of the target language rather than language transfer (Fang and Jiang ,2007). Richards as cited by Sawalmeh (2013) cites four main types of Intralingual errors, namely: (1) overgeneralization, (2) ignorance of rule restrictions, (3) incomplete application of rules, and (4) false concepts hypothesized. Later he identifies six sources of errors: (1) interference, (2) overgeneralization, (3) performance errors, (4) markers of transitional competence, (5) strategies of communication and assimilation, and (6) teacher-induced errors.

Brown (2007) averred that errors also stem from intralingual transfer, which is an indicator to the teacher that the student has moved out of the beginning stages of learning. Once learners have begun to acquire parts of the new system, more and more intralingual transfer-generalization within the target language-is manifested.

The early stages of language learning are characterized by a predominance of interlingual transfer, but once the learner has begun to acquire part of the new systems, more and more intralingual transfer – generalization within the target language – is manifested. In the literature on second language acquisition, interference is almost as frequent as a term as overgeneralization, which is, of course, a particular subset of generalization. The principles of generalization can be explained by Ausubel's concept of meaningful learning. Meaningful learning is, in fact, generalization: items are subsumed (generalized) under half-order categories for meaningful retention. Much of human learning involves generalization.

OBJECTIVES

The study aimed to determine the morpho-syntactic errors on the written discourse of criminology students enrolled in an English Writing class of JRMSU as a prospect for an enhanced syllabus and proposed writing skills practice book. Specifically, it determined the significant difference in the morpho-syntactic errors committed by the respondents when they are categorized in their socio-demographic characteristics as to gender, age and the campus where they enrolled.

METHODOLOGY

This study utilized a quantitative-qualitative descriptive research. The freshman criminology students of English writing class of the five campuses of JRMSU System were used as respondents of the study. The instrument was prepared by the researchers which was made up into two parts. First part dealt on the socio-demographic profile of the respondents along with gender, age and campus ; and the second part dealt on the writing activity which was essay writing. The essays were argumentative and were composed of 150-200 words. A list of 10 topics was provided (e.g. hazing, human trafficking, fraternity, prostitution, bullying, cyber crime, child labor, corporal punishment, drug addiction, and violence against women and children.). Two university EFL teachers who had mastered the language helped in detecting the morpho-syntactic errors of the written output of the respondents. Errors were classified into morphological errors and syntactical errors. Errors in the compositions were counted to know the most frequent errors committed by the respondents.The data were treated using the frequency, percentage, mean, T-test and F-test.

FINDINGS

Table 1 Morphological Errors Committed by the Respondents

Type of Error	Frequency	Percentage
Pluralization of Nouns	866	23.39%
Verb Tense	863	23.31%
Spelling	920	24.86%
Affixes	1053	28.44%
Total	**3702**	**100%**

Table 1 presents the morphological errors committed by the respondents. Based on the table, the errors committed by the respondents were categorized into pluralisation of nouns, verb tense, verbal and affixes in which the respondents committed more errors on affixes (28.44%).

According to Al-Badawi (2012) failure to use or a tendency to misuse certain morphemes arises from lack of knowledge of English morphemes.

Richards as cited by Sawalmeh (2013) cites four main types of Intralingual errors, namely: (1) overgeneralization, (2) ignorance of rule restrictions, (3) incomplete application of rules, and (4) false concepts hypothesized. Later he identifies six sources of errors: (1) interference, (2) overgeneralization, (3) performance errors, (4) markers of transitional competence, (5) strategies of communication and assimilation, and (6) teacher-induced errors.

However, the findings of the study revealed that aside from the above-mentioned type of intralingual errors, the researchers found out that technological interference will be added to the list as the respondents committed some errors on word formation because they applied their style of writing in writing text messages, posting shout outs on facebook and writing e-mails.

Below is the presentation of the morphological errors committed by the respondents:

1. Pluralization of Nouns
Errors on the pluralisation of nouns occur when students failed to provide the plural form of the word especially if they are special nouns.

The fraternity are one of the issue today.
Det+CN+V+adj+Prep+det+N+adv
Fraternity is one of the issues today.

2. Verb Tense

Errors of wrong tense or wrong verb occur when a learner used the wrong verb tense in the sentence. The results of this study revealed that the participants were not aware of applying the correct tense to the verb in the sentences.

Our country will be degrade in the other countries.
Pro+N+futurePerfectTV+Prep+det+IndPro+N

Our country will be degraded by other countries.

3. Spelling

Spelling means the act or process of writing words by using the letters conventionally accepted for their formation

In dat case, human trafiking is a recruitment, transportation, transfer of a persons, by means of the threat.
Prep+DemPro+N+Verbal+V+Art+V+V+V+Prep+Art+N+Prep+N+Prep+Det+N
In that case, human trafficking is recruitment, transportation, and transfer of persons, by means of a threat.

4. Affixes

Suffixes and prefixes are letters attached at the beginning and end of the words to form another words. However, students commit errors if they do not have knowledge on what appropriate suffixes and prefixes are to be used to form another words that would fit the context.

This crime is profiting to others.
DemPro+N+Ger+Prep+Pro.
This crime is profitable to others.

Table 2 presents the syntactic errors committed by the respondents. Based on the table, the errors committed by the respondents were categorized into pronoun, sentence fragment, word order, S-V agreement, preposition, articles, clauses and phrases. As reflected on the table, the respondents committed more errors on the subject-verb agreement with 1092 counts (22.21%). Such errors are attributed to negative

intralingual transfer.

The findings supported the theory of Brown (2007) that errors also stem from intralingual transfer, which is an indicator to the teacher that the student has moved out of the beginning stages of learning. Once learners have begun to acquire parts of the new system, more and more intralingual transfer-generalization within the target language-is manifested.

According to Kavaliauskiene (2009), transfer

Table 2   Syntactic Errors Committed by the Respondents

Type of Error	Frequency	Percentage
Pronoun	384	7.81%
Sentence Fragment	570	11.59%
Word Order	349	7.10%
S-V Agreement	1092	22.21%
Preposition	940	19.12%
Articles	429	8.72%
Verbal	596	12.12%
Conjunction	557	11.33%
Total	4917	100%

of errors may occur because the learners lack the necessary information in the second language or the intentional capacity to activate the appropriate second language routine. Further, Al-Badawi (2012) claimed that syntactic errors tend to arise from negative L1 interference on L2 structures.

Below is the presentation of the syntactic errors committed by the respondents:

1. **Pronoun**

The leader of the fraternity which is in-charge of the hazing should be punished.
The leader of the fraternity who is in-charge of the hazing should be punished.

2. **Sentence Fragment**
The bad morality of some groups especially who do not care for other people

The immorality of some groups of people is shown by the lack of care for others.

3. **Word Order**

In the cities are many children who are in child labor.

There are many children in the cities who are engaged in child labor.

4. **Subject-Verb Agreement**

Sometimes, it take danger to your life because of prostitution.

Sometimes, prostitution brings danger to your life.

5. **Preposition**

At the day, children loiter around begging the food and money.

At the end of a day, children loiter around begging for food and money.

6. **Articles**

Drug addiction is a abuse of narcotics drugs in the hazard of practice.

Drug addiction is an abuse of narcotics using dangerous practice.

7. **Verbal**

This will include in downloading, hacking, and illegal use of files.
This includes downloading, hacking and us-ing of files.

8. **Conjunction**

The children worked hard to look for money since their parents are jobless.

The children worked hard to look for money because their parents are jobless.

On Gender

Table 4. Profile of the Respondents as to Gender

Gender	Frequency	Percentage
Female	45	30%
Male	107	70%
Total	152	100%

As shown on the table, out of 152 respondents, there were 45 or 30% were female and 107 or 70 % were males.

Table 3   Test of Significant Difference in the Morpho-syntactic Errors Committed by the Respondents when Analysed by Gender

	Average and Standard deviation error committed by Gender				t-value	p-value	Decision
	Male		Female				
	Mean	Sd	Mean	Sd			
Morpho-Syntactic errors	56.57	6.59	57.04	7.33	0.39	0.696	Accept Ho

Legend: Statistical treatment @ 0.05, df = 150

T-test revealed that the morpho-syntactic errors committed by the respondents are not significantly different between the males and females respondents (t=0.39,p=0.696). This implies that gender does not determine the morpho-syntactic errors committed by the respondents. The findings of the study contradicted the study of Flores, et. al. (2014) that a difference exists between the linguistic errors of the respondents on gender in which male respondents committed more errors than girls.

On Age

Table 4   Test of Significant Difference in the Morpho-syntactic Errors Committed by the Respondents when Analysed by Age

F-test revealed that the morpho-syntactic errors of the respondents are not significantly different as

age	freq	sources	degrees of freedom	sum of squares	mean square	F-test	p-value	Decision
17	51	Factor	3	192.4	64.1			
18	43	Error	148	6780.9	45.8	1.40	0.245	Accept Ho
19	24	Total	151	6973.3				
20	34							

to the age of the respondents (f=1.40, p=0.245).

This implies that age does not determine the difference on the morpho-syntactic errors committed by the respondents.

By Campus

F-test revealed that the morpho-syntactic errors committed by the respondents are significantly different as to the campus they are enrolled in (f=4.32, p=0.002. This implies that the morpho-syntactic errors of the respondents varied by campus.

Respondents from Dipolog and Dapitan campuses committed more errors while the respondents from Siocon and Tampilisan committed less errors on

campus	mean	sources	degrees of freedom	sum of squares	mean square	F-test	p-value	Decision
Dap	18.42	Factor	4	733.7	183.4			
Dip	29.61	Error	147	6239.6	42.4	4.32	0.002	Reject Ho
Kat	17.76	Total	151	6973.3				
Tamp	17.11							
Sioc	17.11							

Legend: Statistical treatment @ 0.05, df = (3,148)

morphology and syntax.

As observed, Dipolog City is a highly industrialized City and Dapitan City is a booming city with the presence of malls, beaches, hotels, and recreational sites, and where the advent of technology like adroid phones, facebook, internet, are ramphant. Most of the students had already gadgets which may be one of the causes why they committed more errors as compared to the students in Siocon and Tampilisan Campus where technology is still scarce to them.

The findings contradicted the study of Tulud (2012) that there is no significant difference in the morpho-syntactic errors when students were grouped according to their ethno-linguistic affiliation, school type, and school location.

CONCLUSIONS

The results showed that the freshmen criminology students of JRMSU committed more errors on the proper use of prefixes, suffixes, and on the subject-verb

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agreement. Such errors stem from intralingual transfer. Transfer of errors may occur because the learners lack the necessary information in the second language or the intentional capacity to activate the appropriate second language routine.

Aside from the existing intralingual errors, technological interference will be added to the list as the respondents committed some errors on word formation because they applied their style of writing in writing text messages, posting shout outs on facebook and writing e-mails.

Gender and age of the respondents do not determine the morpho-syntactic errors committed by the respondents while the respondents differ on their morpho-syntactic errors by campus.

On the whole, it implies that in the process of learning a second language, learner is likely to commit errors. This study supported the theory of Brown (2007) that errors also stem from intralingual transfer, which is an indicator to the teacher that the student has moved out of the beginning stages of learning. Once learners have begun to acquire parts of the new system, more and more intralingual transfer-generalization within the target language-is manifested. Moreover, the study supported the extension of the theory, which hypothesized that a difference exists in the productive skills between male and female.

RECOMMENDATIONS

In the light of the findings the researchers are proposing a revision and enhancement of the syllabus which emphasize more on linguistic rules of English especially morphology and syntax of English language. The Department of English Language should strengthen the existing co-curricular activities to encourage the students to participate actively where their writing competency will be developed. Language Instructors should also strengthen their teaching strategies on the different aspects of grammar so as to enhance students' knowledge of English grammar for effective writing, and more exercises on the subject-verb agreement, and the proper use of affixes.

They should monitor comprehensively the writing output of the respondents to check if the students adopted their style of writing in text messages, posts on facebook and e-mails. Development of workbook for Eng 22 (Technical Writing & Reporting) for criminology students is highly recommended to enhance their writing competence. Moreover, further researches are suggested and conducted with some pedagogical implications which might assist ESL/ EFL teachers with some helpful suggestions and teaching strategies that will reduce future problems regarding writing English essays among criminology students.

ACKNOWLEDGMENT

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BACHELOR OF ELEMENTARY EDUCATION PROGRAM:
A BASELINE STUDY ON THE GRADUATES' PERFORMANCE

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ABSTRACT

This descriptive-correlational research ascertained the performance of the teacher education graduates in the licensure examination in relation to their academic achievement in the general and professional education courses of the 1059 Bachelor of Elementary Education graduates who took the Licensure Examination for Teachers (LET) from 2008 – 2013. The graduates' performance in the LET was taken from a copy of the roster of examinees from the Professional Regulation Commission while their academic achievement was generated from the office of the Registrar. Documentary analysis, with the frequency, percentage, mean, standard deviation and Pearson's Product Moment Coefficient of Correlation were used to analyze the data at 0.05 level of significance. Findings revealed that there were more graduates who passed than those who failed in the LET as a whole and in the general and professional education subjects. Generally, the graduates obtained an average level in the licensure exam and a very good academic achievement level. Their academic achievement significantly influenced their performance in the licensure examination.

INTRODUCTION

High performance of graduates in the board examinations is a success indicator of quality provided by higher education institutions. Realizing this considers the institution as effective and efficient in terms of the instructional delivery system.Driven by its passion for continuous improvement, the Carlos Hilado Memorial State College has vigorously pursued distinction and proficiency in delivering quality education to the youth of Negros Occidental in the fields of teacher education, business, agrofishery, industry, science and technology. The first state college in the province of Negros Occidental as a green institution aims at sustaining quality by providing responsive and relevant curricular programs through its Green Curriculum advocacy. In particular, the College of Education has clearly envisioned its pathway towards the realization of its advocacies and the fulfillment of its mission in preparing teachers in vari-

ous fields. The Bachelor of Elementary Education Program (BEED) is *"structured to meet the needs of professional teachers for elementary schools and special education programs in the Philippines"* (CMO 30, s. 2004). The BEED Program, under the College of Education, produced topnotchers in the LET (Licensure Examination for Teachers) in August 2014 and March 2015. It was awarded the Level III Re-Accredited status until December 2017 during the Level III, Phase 2 Visit of the AACCUP (Accrediting Agency of Chartered Colleges and Universities in the Philippines) Team in December 2013. The Licensure Examination was one of the chosen areas submitted for presentation and evaluation. It was recommended that an analysis be done on the performance of graduates in the licensure examinations. Further, outcomes

of this study will serve as baseline data and may be used as basis for interventions that could be adopted by the Department. It is on these premises that this research is being conducted.

Statement of the Problems

The main concern of this study was to ascertain the academic achievement of the teacher education graduates in relation to their licensure examination performance in the general and professional education subjects. Specifically, it sought answers to the following questions:

1. What is the performance of the teacher education graduates in the licensure examination as a whole and in the general and professional education subjects for the years 2008 – 2013?

2. What is the level of academic achievement of the teacher education graduates in the general and professional education subjects when taken as a whole and for the years 2008 – 2013?

3. What is the level of performance of the teacher education graduates in the licensure examination in the general and professional education subjects when taken as a whole and for the years 2008 – 2013?

4. Is there significant relationship existing between teacher education graduates' academic achievement and their performance in the licensure examination in the general and professional education subjects?

Theoretical Framework of the Study

Quality pre-service teacher education is a key factor in quality Philippine education. In the Philippines, the pre-service preparation of teachers for the primary and secondary educational sectors is a very important function and responsibility that has been assigned to higher education institutions. All efforts to improve the quality of education in the Philippines are de-pendent on the service of teachers who are properly prepared to undertake the various important roles and functions of teachers (Article 1, Section 1, CMO 30, s. 2004).

Along with this preparedness is for pre-service teachers to become *"duly licensed professionals"* (Code of Ethics for Professional Teachers). Likewise, *"No person shall engage in teaching and/or act as a professional teacher in the preschool, elementary or secondary level, unless the person is a duly registered professional teacher, and a holder of a valid certificate of registration and a valid professional license"* (Republic Act No. 9293, Sec. 4.1). Further, *"a certified photocopy of PRC Certificate of Registration/License"* is required in the hiring of Teacher I in the Department of Education (DepEd Memo No.121, s. 2009).

The College of Education offers the Bachelor of Elementary Education with four years of training consisting of general education, professional education and major subjects. Similarly, these areas are being measured in the licensure examination.

This study is anchored on the Self-Efficacy Theory. Self-efficacy affects the process of choosing goals, expectations of outcomes, and achieving success and failure (Snowman and Biehler as cited by Aquino, 2015). The belief about how capable people are in the performance of certain tasks is necessary in achieving tasks. In the same manner, teacher education graduates must hurdle the LET to be able to fulfill role expectations.

It is in the context of this study to look into the academic achievement of BEED graduates as the independent variable that affects their performance in the licensure examination.

Academic achievement is measured in a continuum from *fair to excellent*. The performance of BEED graduates in the licensure examination, considered as the dependent variable is measured in a continuum from *very low to very high level*.

Variable Groupings	Passed		Failed		OVERALL	
	N	%	N	%	N	%
2008	90	13.7	42	10.4	132	12.4
2009	82	12.5	88	21.9	170	16.1
2010	93	14.2	94	23.3	187	17.7
2011	110	16.8	95	23.6	205	19.4
2012	168	25.6	21	5.2	189	17.8
2013	113	17.2	63	15.6	176	16.6
OVERALL	656	100.0	403	100.0	1059	100.0

Performance of the Teacher Education Graduates in the Licensure Examination in the General and Professional Education Subjects

The performance of the teacher education in the licensure examination in the general and professional education subjects is the next concern of this study. Table 2 shows that the passing rate of the teacher education graduates is 61.8 percent and 55.3 per cent in the general and professional subjects, respectively.

For the general education subjects, it was in 2012 that the teacher education graduates had the highest passing rate at 87.3 percent, followed by those who took the LET in 2008 (82.6 %), 2013 (71.5 %), 2009 (51.2 %), 2010 (46.5 %) and 2011 (39.0 %).

It was in 2012 that the teacher education graduates had the highest passing percentage in the professional education subjects at 82.5 per cent while in 2010, they had the lowest passing percentage at 39 per cent.

Table 2

Performance of the Teacher Education Graduates in the Licensure Examination in the General and Professional Education Subjects

Level of Academic Achievement of the Teacher Education Graduates in the General and Pro-

Variable Groupings	General Education				Prof Education				OVERALL	
	Passed		Failed		Passed		Failed			
	N	%	N	%	N	%	N	%	N	%
2008	109	82.6	23	17.4	82	62.1	50	37.9	132	12.4
2009	87	51.2	83	48.8	71	41.8	99	58.2	170	16.1
2010	87	46.5	100	53.5	73	39.0	114	61.0	187	17.7
2011	80	39.0	125	61	102	49.8	103	50.2	205	19.4
2012	165	87.3	24	12.7	156	82.5	33	17.5	189	17.8
2013	126	71.5	50	28.4	102	58.0	74	42.0	176	16.6
OVERALL	654	61.8	405	38.2	586	55.3	473	44.7	1059	100.0

fessional Education Subjects

The second objective of this study was to determine the level of academic achievement of the teacher education graduates in the general and professional education subjects when taken as a whole and when grouped as to year of examination.

Data revealed that generally, for the general education subjects, the level of academic achievement of the teacher education graduates is very good, as indicated by the mean score of 1.9212. Such level lies in the middle as measured in a continuum used in this study. The SDs which range from .13452 to .16036 show a narrow dispersion of scores, indicating that the graduates were homogenous in their academic achievement in the general education subjects.

For the professional education subjects, it was in 2009 to 2011 where the teacher education graduates had an academic achievement interpreted as very good while superior for the rest of the examination years. The mean of 1.7956 is interpreted as superior and is second to the highest used in the continuum.

Table 3

Level of Academic Achievement of the Teacher Education Graduates in the General and Professional Education Subjects

Variable Groupings	General Education			Professional Education		
	Mean	SD	Description	Mean	SD	Description
2008	1.9337	.14130	VG	1.7615	.13353	S
2009	1.9393	.13452	VG	1.8589	.11595	VG
2010	1.8947	.14138	VG	1.8632	.14234	VG
2011	1.9296	.14081	VG	1.8131	.18122	VG
2012	1.9372	.14219	VG	1.7344	.16580	S
2013	1.8949	.16036	VG	1.7356	.16118	S
OVERALL	1.9212	.14447	VG	1.7956	.16171	S

Level of Performance of the Teacher Education Graduates Licensure Examination in the General and Professional Education Subjects

Level of Performance of the Teacher Education Graduates Licensure Examination in the General and Professional Education Subjects

Variable Groupings	General Education			Professional Education		
	Mean	SD	Description	Mean	SD	Description
2008	76.1111	5.70873	Average	72.7778	7.11789	Average
2009	72.1008	7.11932	Average	69.9412	7.65384	Low
2010	72.1102	6.37110	Average	71.0630	6.63175	Average
2011	70.1985	7.20681	Average	70.8750	7.79595	Average
2012	76.7109	3.69326	Average	77.3906	4.50413	Average
2013	75.4918	6.04835	Average	72.8443	8.61387	Average
OVERALL	73.6648	6.60831	Average	72.4829	7.55460	Average

Thirdly, the research tried to determine the level of performance of the teacher education graduates in the licensure examination in the general and professional education subjects when taken as a whole and grouped as to year of examination.

Table 4 shows that, when taken as a whole and as to year of examination, the levels of performance of the teacher education graduates in the licensure examination in the general and professional education subjects are average as indicated by mean scores ranging from 60.40 to 80.10. The SDs ranging from 3.69326 to 8.61387indicate a wide dispersion of scores which is taken to mean that the subjects were heterogeneous in their level of performance.

Their level of performance, the average level is in the middle as measured by the continuum used in this study. This implies that the BEED teacher education graduates are prepared to teach. CMO 30, s.2004 states that *"graduates of BEED and BSED programs are teachers who have a meaningful and comprehensive knowledge of the subject matter they will teach"*. It also shows the need on the part of the implementers of the teacher education program, especially in the general and professional education subjects, to heighten their efforts to raise the level of performance of the graduates to the maximum level.

Table 4

Relationship Between the Academic Achievement and Performance in the Licensure Examination of Teacher Education Graduates in the General and Professional Subjects

The last concern of this study ascertained the relationship between the academic achievement and performance of the teacher education graduates in the general and professional education subjects.

As reflected in Table 5 on the next page, the Pearson's result between the academic achievement and performance in the licensure examination of teacher education graduates in the general and professional education subjects is significant with the P-value of 0.000.

The significant relationship between the academic achievement of the teacher education graduates and their performance in the licensure examination is indicative that academic achievement has somehow contributed to their performance in the licensure examination in the general and professional education subjects. This likewise would mean that focus on quality instruction especially in the general and professional subjects should be the top priority of teachers.

This finding confirms the study of Esmeralda and Espinosa (2014) which revealed that there is a significant relationship between the academic achievement and LET performance of the 399 BSED graduates during the school years 2010-2013.

Table 5

Relationship Between the Academic Achievement and Performance in the Licensure Examination of Teacher Education in the General and Professional Education Subjects

Findings

Grouping Variables	r	p
Academic Achievement and LET Performance in Gen Ed	-0.333**	0.000
Academic Achievement and LET Performance in Prof Ed	-0.453**	0.000

**Significant at 0.01 alpha*

The investigation yields these findings:

1. The passing rate of the teacher education graduates in the licensure examination and in the general and professional education subjects is higher than the non-passing rate. The highest passing rate was obtained in 2012, while the lowest in 2009. For both the general and professional education subjects, the highest passing rate was in 2012, while the lowest was in 2011 and 2010 respectively.

2. The level of achievement of the teacher education graduates as a whole and as to year of examination and in the general and professional education (2009 to 2011) subjects is very good. Interestingly, their academic achievement for the years 2008, 2012 and 2013 in the professional education subjects was superior.

3. Generally, the level of performance of the teacher education graduates in the licensure examination in the general and professional education subjects and year of examination is average.

4. Significant relationship was noted between the level of academic achievement and performance in the licensure examination of teacher education graduates in the general and professional education subjects.

Conclusions

Based on the findings of this study, the following conclusions were drawn:

1. Majority of the teacher education graduates were passers in the licensure examination. There are more passers than those who failed in the general and professional education subjects.

2. There is a felt need to raise the level of academic achievement of the teacher education graduates in the general and professional education subjects, as this indicates success in licensure examination.

3. The teacher education graduates performed well in the licensure examination in the general and professional education subjects.

4. Academic achievement determines the performance of the teacher education graduates in the licensure in the general and professional education subjects.

Recommendations

In the light of the conclusions drawn, the researcher recommends that:

1. Various tools in assessment may be used to ensure more objective and continuous assessment of student performance to validate

the role of academic achievement in the licensure examination.

    2. Regular syllabi and curricula

enhancement and revision, specifically in the general and professional education subjects may be undertaken, and implementation of the One System One Standard Policy and Outcomes-Based Education to increase the percentage of passers in the licensure examination.

    3. Further researches on the

performance of graduates may be conducted by the College as inputs for enhanced delivery of instructional services.

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RHYMES AND REASONS: POPULAR INDIGENOUS BONTOK CHILDREN'S RHYMES AND THEIR EDUCATIONAL IMPLICATIONS

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ABSTRACT

In the field of children's literature, the considerable educational importance of teaching rhymes in elementary schools is tremendously promoted by English teachers and has engrossed a massive increase of research. However, the instructional design of rhymes in elementary school textbooks is rarely explored. Thus, the purpose of this research is to assemble some selected popular indigenous Bontok children's rhymes and study their uses and functions; to discover how are the content features of these indigenous Bontok children's rhymes presented; to explore how can these indigenous Bontok children's rhymes be facilitated in the K12; and to examine the educational effects of applying these Indigenous Bontoc children's rhymes in elementary teaching and learning.

In this study, the researcher used the qualitative conventional content analysis and coding qualitative scheme approach based on Cunningsworth's (1995) evaluation checklist and coding of qualitative data.

The findings show that most of the rhymes were written with rhyming words aimed at an easy level of comprehensibility, oriented to themes related to the children's background knowledge, rich in repetitive patterns and presented in various modes of presentation. With regards to the instructional design, the findings pointed out that the instructional objectives were oriented primarily toward the learning of language skills. The majority of the rhymes were designed based from Brown's (2007) taxonomy: the free technique and the controlled techniques. The provision of teaching resources centered on the provision of translation and the provision of additional materials that refers to the supplementary teaching materials, such as the worksheets on rhymes, and pictures that are related to the rhyme's theme.

Keywords: Bontok, Indigenous rhymes, K12, children's rhymes

INTRODUCTION

This study contains Bontok children's rhymes with their literary analyses and educational implications to the children in the primary level. Children's rhymes are great materials for making teaching and learning interesting, practical and relevant among the pupils' lives in the classroom. They can be utilized to cultivate pupils' basic language skills, learning interests, methods and cultural concepts. The melodic, the rhythmic, the rhyming, the repetitive nature of the Indigenous Bontok rhymes can serve as useful language inputs and mood setters that contribute to the learning of the mother tongue particularly on the Bontok language and the linguistic skills, and affective, cognitive, and cultural aspects. Thus, songs and rhymes are recommended as one of the main genres for the teaching of mother tongue in the K12 curriculum.

In a classroom setting, a teacher needs to understand the rhymes' implications in Bontok mother tongue to be able to appreciate and value the meanings of these rhymes and to know when these rhymes be recited. A teacher should therefore examine the rhyme's purpose to see the creativity to how the rhymes were composed although these rhymes were anonymously written. In connection with this, literary analysis in terms of their educational implications and meanings was employed to attain the aims and purposes of this research

Due to the multiple functions served by rhymes in education, the education policy as far as K-12 curriculum is concerned renders songs and rhymes unique roles in the elementary school setting. In the elementary level of which the use of mother tongue to children is necessary, indigenous songs and rhymes are expected to fulfill various purposes in elementary education. For example, "appreciating the melodic rhythm in a local rhythmic way" and "reading aloud and singing songs and rhymes" are seems to be the basic competencies outlined in the new curriculum this 2016. Furthermore, the use of songs and rhymes among the children are great materials for making every subject interesting, practical, and relevant to the children's lives. They can be utilized to cultivate the pupil's basic language skills, learning interests, methods and cultural concepts. Thus indigenous songs and rhymes are recommended as one of the main genres for the teaching of mother tongue for children in the primary level.

STATEMENT OF THE PROBLEM

Based on the above background, there are four problems that are formulated, and they are as follows:

1. What are some popular indigenous Bontok children's rhymes and their uses and functions?

2. How are the content features of the indigenous Bontoc children's rhymes presented?

3. How can these indigenous Bontoc children's rhymes be facilitated in the K12?

4. What are the educational effects of applying Indigenous Bontoc children's rhymes in elementary teaching and learning?

DESIGN AND METHODOLOGY

Research Design

In this study, the researcher used the qualitative conventional content analysis and coding qualitative scheme approach based on Cunningsworth's (1995) evaluation checklist and coding of qualitative data in an attempt to answer the second and third research question proposed in the study. In the first section, the popular Bontok indigenous children's rhymes selected for analysis will be introduced, sorted out according to their functions and usage. Secondly, Code Scheming will focus on the main phase which is on the Detailed Content Analysis Phase. This will be further collected, interpreted, illustrated and explained how are these be facilitated in the classroom setting for K12. Thirdly, the effects of applying Indigenous Bontoc children's rhymes in elementary teaching and learning will be discussed based from the interviews and observations done inside the classrooms.

RESULTS AND DISCUSSIONS

The Popular Indigenous Bontok Children's Rhymes: Their Uses and Functions

A. Songs for children

1. Lullabies and Bedtime Rhymes

Lullabies are sung to babies and young children when it is time for a nap, or at bedtime until they fall asleep. They are usually soft, gentle, dreamy songs where the sound of the parent's voice helps to sooth and reassure the child and make them feel relaxed and comfortable.

Maseyep ka Bibi
Go to Sleep My Child
Maseyep kay Bibi,

Sleep my little one,

Tay si ina't umey mangubi

For mother will gather camote,

Ta waday kanen takos awni.

for our dinner later.

These lullaby variants that hope to obtain peace to a child is regularly crooned in hundreds of thousands of homes in the Bontoc villages at nightfall. The age of these rhymes and the melody is uncertain. The words are first transferred from one generation to another in different dialect spoken around Bontoc and its barangays that serves only to lull a baby to sleep.

Litem,Litem
Litem, litem pap alidem nan fab-am,

Litem, litem sharpen your teeth

It itneb mos nan kib-am

To frighten anybody who doesn't sleep.

Sanaska wanga (awnin pantew, segpan)

There it goes along the river (later at the door)

2. **Dandling Rhyme-Song.** These are songs sung to amuse or entertain a baby or children. This is often emerged as an accompaniment to certain actions.

Tilin, Tilin

Bird, Bird

Tilin, tilin opaklin;

Bird, bird Opaklin

Adim anka angkayen

Don't eat it all.

Nan felewak ad salin;

To Salin off I went to scare you

Ta waday sinkimata,

With my basket to fill

Is islong ko'd Sagada

to bring something in Sagada,

Fab-ayowen ama da;

For father to pound it,

Tap-tap-an ina da

For mother to winnow it,

Ut utwen yon-a cha;

For older one to cook it,

kankanen nan inochecha.

For little one to eat it.

In past decades in Bontoc, village boys and young members of the farmers' family used to hang around as bird scarers (In Fi-lew) in the fields. The bird scarers seem to have sung special songs on the fields just not to be bored. In an interview from Ina Udchayyak, she remarked that it's a custom for boys and girls to keep birds off rice fields until the grains are ready for harvest…at such times these songs or rhymes in a loud voice are frequently sung.

3. Didactic Songs. Used to moralize or give advice to the children

Mangan Ka's Enpa-engngan

Mangan ka's enpa-engngan/

Eat a lot of healthy food

Enpaengngan, enpaengnga/

healthy food, healthy food

Mangan ka's enpaengngan/

Eat a lot of healthy food

Tatno oman-ancho ka/

So that you will grow taller.

This song was popularly heard sung during the 70s by school children celebrating nutrition month. This is also known as a school song sung every morning by children to know how to value nutritious foods. The melody is evidently adapted from a famous western nursery rhyme, "Going around the mulberry bush."This song is still re-membered and sung in some schools throughout the Bontoc district.

B.   Songs by Children

1.   Rhymes used to accompany simple actions and movements or Game – Play songs

Some rhymes can be reinforced using simple movements or actions. Some of these can be adapted as tickling songs and game songs if re-quired. Children enjoy the actions and they can join in and copy their parents. Some of these rhymes and action songs can accompany very simple games suitable for the youngest children usually played indoors with the family members. They are sung during the actual playing of the game.

Piti-piti Kordaliti

Piti-piti Kordaliti

Piti-piti kordaliti

Salamingminggwa

Ipos si kafaryo

A tail of a horse

Ay natiko-tiko

That is very crooked

Alam ta kanem

Get and eat it!

This game is usually done indoors and outdoors to select who among the children to be the "It" in any game like "hide and seek." This is repeated by the leader as he points at the players in turn who place their point fingers in a circular for-mation, one accented syllable to each child, and the child on once the leader ends the rhyme from the word "kanem", the person who owns the fin-ger will be out from the circular formation. The leader continues until one finger is left to be the "It" in the game. These formulas, though often

gibberish or nonsense, have recognizable metrical shapes; versions collected in widely separated places in Mountain Province that have remarkable similarity.

2. Rhymes used to help to teach counting or Counting-out Songs

Some children's rhymes help to teach numbers and counting, either normal upwards counting but including counting downwards for some songs.

Esa, Chuwa…

One, Two..

Esa, chuwa fachuya

One, two "fachuya"

Toro, epat patopat

Three, four "patopat"

Lima, enem khinemkhem

Five, six, eat it!

Pito, waro, khina-o

Seven, eight serve it!

Syam, simporo, mangan tako

Nine, ten let us eat!

Great antiquity was attached to these rhymes well before the coming of the Americans in the Cordillera region. The tradition in Bontoc according to Ina (mother) Layet of Chakchakan, Bontoc, Mountain Province was that this counting rhyme was a remnant of formula used by the old Bontok pagan farmers for counting.

The Content Features of the Indigenous Bontoc Children's Rhymes

In this section, the results and discussion are directed toward the second problem: How are the content features of the indigenous Bontoc children's rhymes presented? And how can these indigenous Bontoc children's rhymes facilitated in the K12?

This will be based from the content properties of the coding scheme, which contains rhymes, vocabulary, language structure, themes, repetitions and modes of presentation. The discussion is focused on the featured presentation of the rhymes and their relevance to children's language learning. The presentation of the rhymes shows certain distinctive features, including the use of rhymes, repetition in the lyrics, diversity in the theme selection, concerns with the comprehensibility of language use, and the multiple modes of presenting the rhymes.

As shown in Table 2, the selected Bontok indigenous rhymes were mostly rhymed even it is written in local vernacular language. However, in the translation of the vernacular dialect to English language, although

the meaning still lies in the context but rhyming words will no longer be as the same as what is written in the local dialect. Similar to some researches on children's rhymes that 99% of the children's rhymes in elementary textbooks were rhymed. The usage of rhymes lies in the fact that rhymes are the most commonly applied rhetorical device when creating children's songs and rhymes. Rhymed language benefits the perception of phonemic awareness as mentioned by Smallwood and Haynes (2008). This poetic device used in songs and rhymes creates the repetition of certain sounds or sound blending. When the rhyming words are highlighted with constant repetition, the repetitive nature of the rhyming words reinforces the concept of onset and rhymes in a natural manner, which further creates a sense of familiarity to young learners.

The use of rhyme is commonly used characteristics in songs and rhymes. As cited by Yu – Cheng Teng in his "Analysis of Songs and Rhymes in Children English Textbooks, (2013), Mayer, Neumayer, and Reuber, 2008 indicated that rhymes are most commonly used in poetry and songs. They distinguished two patterns of subsequent lines in a song text: AA and AB. The former represents two rhyming lines, while the latter denotes non-rhyming. The use of rhymes will be based on these basic patterns as described in Table 2. A 'Couplet' AA describes the rhyming of two or more subsequent pairs of lines. It usually occurs in the form of a 'Clerihew', i.e. several blocks of Couplets AABBCC... ABBA, or enclosing rhyme denotes the rhyming of the first and fourth, as well as the second and third lines (out of four lines).

I. The Use of Rhyme

In the introduction of Davidson and Heartwood, 1997, there are two basic rhyme forms used when creating songs They are the hard rhymes that refer to the rhymes that rhyme in identical sequences of vowels and consonants; and the soft rhymes which occur in words holding the same vowel but that are different in

Table 2. Rhyme Features of Lyrics Analysis

Feature Name	Description
Rhymes AA	A sequence of two or more lines (couplet)
Rhymes AA-BB	A block of two rhyming sequences of two lines (Clerihew)
Rhymes ABAB	A block of alternating rhymes
Rhymes ABBA	A sequence of rhymes with a nested sequence

consonants.

The above features will be the basis of rhyme distribution of the Bontok indigenous children's rhymes.

Table 3: The Rhyming Distribution of the Bontok Children's Rhymes

A. Songs For the Children		Rhymed	Not Rhymed
1. Lullabies and Bedtime Rhymes			
a.	*Maseyep ka Bibi*	✓	X
b.	*Ayye-es*	✓	X
c.	*Maseyep Ka*	✓	X
d.	*Litem, Litem*	✓	X
e.	*Ama, Ama*	✓	X
2. Dandling Rhyme-Song			
a.	*Buwan, Buwan*	✓	X
b.	*Tilin, Tilin*	✓	X
c.	*Kinek, Kinek*	✓	X
d.	*Shoprano*	✓	X
3. Didactic Songs			
a.	*Mangan Ka's Enpa-engngan*	✓	X
b.	*Menda-op Kau Kuma*	✓	X
B. Songs by the Children			
1. Game – Play songs			
a.	*Tabtabukallo*	✓	X
b.	*Piti-piti, Kurdaliti*	✓	X
2. Counting-out Songs			
a.	*Esa, Chuwa*	✓	X
b.	*Pinesha, Pinchuwa*	✓	X

The result from the above table indicates that most of the children's rhymes popular in Bontok were mostly rhymed. It is in fact noticeable that rhymes are the most commonly used applied rhetorical device in the songs for children and by the children. This type of language usually common among children will provide them a perception of phonemic awareness most especially songs that will be taught in the primary level of K-12. This poetic device used creates the repetition of certain sounds and sound blending. As to what (Davidson and Heartwood, 1997) emphasized that when a rhyming word is highlighted with constant repetition, the repetitive nature of the rhyming words reinforces the concept of onset and rhymes in a natural manner, which further creates a sense of familiarity for young learners. When approaching a new language, this sense of familiarity can take children into a state of comfort and harmony.

Rhyme Analysis of the Songs

The analysis of the rhymes will be based from how these rhymes were written in the vernacular dialect of the Bontoks. Translation of these rhymes in English language will not bring out the rhyming sounds used which is one of the examined items in this study.

Maseyep ka Bibi

Maseyep ka bibi,	a
Tay si ina't umey mangubi	a
Ta waday kanen takos awni	a

Rhyme Analysis:
1. Internal Rhyme   none
2. External Rhyme
         [bibi], [mangubi], [awni]
3. Rhyme scheme   AAA   - (rhyme AA)
4. Soft Rhyme   none
5. Hard Rhyme

The rhymed ones were to be coded in the following rhyming patterns as shown on Table 4 below:

II. Language Structure is the structure of how the sentences in rhymes are organized in a variety of

A. Songs For the Children		Internal Rhyme	External rhyme	Rhyme Scheme	Soft Rhyme	Hard rhyme
1. Lullabies Rhymes						
a.	*Maseyep ka Bibi*	None	3	AA	None	3
b.	*Ayye-es*	✓	3	AA/AB	None	3
c.	*Maseyep Ka*	✓	4	AA	None	4
d.	*Litem, Litem*	✓	2	ABBA	4	2
e.	*Ama, Ama*	✓	8	AABB/.AA	2	4
2. Dandling Rhyme						
a.	*Buwan, Buwan*	✓	4	AA	None	4
b.	*Tilin, Tilin*	✓	4	AA	2	4
c.	*Kinek, Kinek*	✓	2	ABAB	None	2
d.	*Shoprano*	✓	6	AA/ABAB	2	4
3. Didactic Songs						
a.	*Mangan Ka's Enpa-engngan*	None	3	AA	2	None
b.	*Menda-op Kau Kuma*	None	4	AA	None	2
B. Songs by the Children						
1. Game – Play songs						
a.	*Tabtabukallo*	✓	3	ABAB	2	2
b.	*Piti-piti, Kurdaliti*	none	4	AA	None	4
2. Counting-out Songs						
a.	*Esa, Chuwa*	✓	2	ABAB	2	2
b.	*Pinesha, Pinchuwa*	none	10	AABB	none	10

grammatical arrangement of words. These sentences were categorized on the basis of the sentence patterns as commonly used by the language teachers in the elementary and secondary level.

Table 5: The Sentence Patterns of the Indigenous Bontok Children's Rhymes

The result of the language structures as

The Sentence Patterns of the Indigenous Bontok Children's Rhymes	
Language Sentence Structure	
Declarative	1. Si ama inmey nin sama. [Father went to plow.]
	2. Si ina inmey nintinda. [Mother went to sell.]
	3. Ipos si kafaryo ay natiko-tiko. [The tail of a horse is crooked.]
	4. Tap-tap-an ina da. [Mother is winnowing.]
	5. Ut utuwen yon-a da. [Sister/Brother is cooking.]
	6. kankanen inodida. [Little one is eating.]
Interrogative	1. Waday nan asok issa? [Is my dog there?]
	2. Apay nga napilay? [Why is it lamed?]
	3. Ama, Ama lomerplep kad si sukod ko? [Father, father can you make a cane for me?]
	4. Kanam man ta umali? [Will you tell him to come?]
Exclamatory	1. Waday! [There is!]
	2. Enka [You go!]
	3. Kinek, kinek [Keep quiet! Keep quiet!]
	4. Sanas ka wanga! [It is there at the river!]
Imperative	1. Maseyep ka bibi, tay si ina't umey mangubi ta waday kanen takos awni. [Sleep baby for mother will go to get sweet potato for our dinner later.]
	2. Menda-op kayo kuma. [Wash your face please.]
	3. Mangan ka's enpa-engngan. [Please eat healthy food to grow taller.]
	4. Mangan ka's enpakedse. [Please eat healthy food to be stronger.]

based from the types of sentence structures for language suggested as reflected in the above table that most of the rhymes were presented with language structures which were relatively simple and easy to comprehend for the children. As shown in the above table, imperative structure and declarative structure are the most common language structure used in this selected children's rhymes. Therefore, with the help of these sentence structures, children will easily be

equipped with the ability to make mother language input comprehensible.

III. Theme refers to where the lyrics of the rhymes are oriented to. It will be categorized on the basis of the common themes as reflected to other children's rhymes in English.

Table 6: The Common Themes of Indigenous Bontok Children's Rhymes

The Common Themes of Indigenous Bontok Children's Rhymes	The Indigenous Bontok Children's Rhymes
1. Manners	a. Menda-op Kayu Kuma
	b. Mangan Ka's Enpa-engan
2. Numbers	a. Pin-esa
	b. Esa, Chuwa
3. animals	a. Piti-piti, kordaliti
	b. tabtabukallo
	c. Tili, tilin
4. Family, Family relationship, Kinship Terms	a. ama, ama
	b. Maseyep ka Bibi
	c. Ayye-es
	d. Maseyep Ka
5. Interesting places	a. tilin, tilin
	b. ama, ama
6. Nature	a. buwan, buwan
7. Daily routine	a. Menda-op Kayu Kuma
	b. Mangan Ka's Enpa-engan
8. Household chores	a. ama, ama
	b. Maseyep ka Bibi
	c. Ayye-es
	d. Maseyep Ka
9. Responsibilities	a. ama, ama
	b. Maseyep ka Bibi
	c. Ayye-es
	d. Maseyep Ka
	e. Kinek, kinek
10. Customs and lifestyles	a. ama, ama
	b. Maseyep ka Bibi
	c. Ayye-es
	d. Maseyep Ka

With the result of the themes as selected from common children's rhymes in English, the result showed a high compliance with the themes of family, family relationship, kinship terms, household chores, responsibilities and customs and lifestyles. Taking a closer look on the table, it was observed that most of the themes as reflected on the rhymes were related to life's experiences of which children will learn to apply. The existence of themes such as manners and daily routine has a pedagogical value for language learning and culture learning for the themes like household chores and responsibilities which are beneficial to the children in mother tongue acquisition. Life-related themes as said by Sir Vincent Tafaleng, Balili Elementary School principal, "create very meaningful contexts for the children in the primary level to learn mother tongue vocabulary and they can be easily transferred to everyday life." The inclusion of Bontok children's rhymes in the elementary textbooks should therefore be based through themes that are related to the real life experiences not on "violent and discriminatory issues as what our children are exposed to in the electronic gadgets in demand now a days," Mr. Tafaleng concluded.

IV. Repetition refers to the method of the constant repetition of the words and lines in the rhymes. The patterns of repetition were examined according to the following as shown in the Table below:

a.   Rhymes that contain repetitive words
b.   Rhymes that contain repetitive phrases
c.   Rhymes that contain repetitive lines

Table 7: The Patterns of Repetition of the Bontok Children's Rhymes

The results indicated in the above table shows that most of the rhymes selected in this study

Songs For the Children	Repetitive words	Repetitive Phrases	Repetitive lines
1. LULLABIES AND BEDTIME RHYMES			
a. *Maseyep ka Bibi*	None	None	None
b. *Ayye-es*	1(aye-es/aye-es)	None	None
c. *Maseyep Ka*	2 (si si)	None	2 (lines 1 &4)
a. *Litem, Litem*	2 (litem/litem)	None	None
b. *Ama, Ama*	2 (ama/ama)	None	None
2. DANDLING RHYME-SONG			
a. *Buwan, Buwan*	2 (buwan/buwan)	None	None
b. *Tilin, Tilin*	2 (tilin/tilin)	None	None
c. *Kinek, Kinek*	2 (kinek/kinek)	None	none
d. *Shoprano*	2 (shoprano/shoprano)	none	2 (lines 1&5)
3. DIDACTIC SONGS			
a. *Mangan Ka's Enpa-engngan*	4(enpa-engan/ omipakneg enpagkhawis/ enpakhedse)	4	4 (lines 1&2, 5 & 7, 9 & 11)
b. *Menda-op Kau Kuma*	2 (yo yo)		
B. Songs by the Children	Repetitive words	Repetitive phrases	Repetitive lines
1. GAME – PLAY SONGS			
a. *Tabtabukallo*	2 (waday/waday)	None	None
b. *Piti-piti, Kurdaliti*	2 (piti/piti)	None	None
2. COUNTING-OUT SONGS			
a. *Esa, Chuwa*	none	None	None
b. *Pinesha, Pinchuwa*	none	None	None

do have a type of repetition that occurred most frequently in the repetition of words followed by repetition of lines and lastly, the repetition of phrase that is found only in the song "Mangan Ka's Enpa-engngan."

Accordingly, "repetition is beneficial for language learning among children as it creates a sense of familiarity and further brings out obviousness in following texts. The predictable structure makes rhymes into a text which is easier to understand than other types of text as mentioned by Madam Beverly Fagyan, a grade 1 teacher at the Bontoc Central School recalling the effect of the song "Mangan Ka's Enpa-engngan" to her pupils in the classroom.

V. Modes of Presentation
a. Textual Presentation
The children's rhymes are presented with regards to different letter sizes, colors and even symbols that aid the children in perceiving the key words and sentences in the rhymes. For example:

Pinesa, Pinchuwa
Pin-esa,   **1**
Pinchuwa   **2**
Pintolo,   **3**
Mayako   **4**
Sudkiyang,   **5**

Kolyang	**6**
Abangkod,	**7**
Kodokod	**8**
Siberway,	**9**
kiyay	**10**

This rhyme is under Counting-out song category, the numbers are in bold-faced or in symbols so as to emphasize the indigenous way of counting 1-10. Another example:

Tabtabukallo

Group 1: **Tabtabukallo?**
Group 2: **Kiya**
Group 1: **Waday nan asok issa?**
Is my dog there?
Group 2: **Waday**
There is!
Group 1: **Kanam man ta umali?**
Tell it please to come?
Group 2: **Enka**
You go!
Group 1: **Apay nga napilay?**
Why is it lame?
Group 2: **Wen- a tay fintak na nan fangak.**
Yes, it broke my jar.
Group 1: **Nu mamingsan adim pilayen ta adik sekten sika.**
Next time, don't do it or else I will also hurt you.

This is another rhyme the children used to play outdoors; colors are emphasized here to separate the color of the groups. Group one is colored green and group two is colored red. This textual assistance using color coding will help the members of the group easily identify the differences between the motivators and the repliers.

b. Musical Presentation includes the notes or notations and the tunes of the rhymes.
For example:

Mangan Ka's Enpa-engngan
Mangan ka's enpa-engngan/
Eat a lot of healthy food
Enpaengngan, enpaengnga/
healthy food, healthy food
Mangan ka's enpaengngan/
Eat a lot of healthy food
Tatno oman-ancho ka/
So that you will grow taller.

This tune is adapted from the very popular children's song which is "Going Around the Mulberry Bush." This way the children will immediately engage themselves in the melody of the rhyme.

c. Pictorial Presentations refers to the illustration provided to further the children's comprehension on the rhymes. For instance:

Maseyep ka Bibi
Go to Sleep My Child
Maseyep kay Bibi,
Sleep my little one,
Tay si ina't umey mangubi
For mother will gather camote,
Ta waday kanen takos awni.
for our dinner later.

This rhyme as what was illustrated in the room of Mrs. Beverly Fagyan reflected the rhyme's theme which is focused on responsibilities, family relationship and kinship terms.

Based from the findings during the actual interview and observation, rhyme lyrics presented with illustrations and not on musical notations build the connection between song singing and text reading. On the language acquisition, with the help of these modes of presentation, it provided a meaningful context to the children in way that they comprehended much easier. Affectively, vivid and clear instructional materials and familiar melodies just like the rhyme "Mangan Kas Enpaengngan" *(Eat a lot of healthy food)* attracted the attention of the children, thereby motivating their interest in learning. These meaningful modes of presenting the children's rhymes to the children in the primary level are indeed beneficial the children's mother tongue learning. The effects to the modes of presentation to the children with definitely strengthen their language growth.

The Instructional Properties of the Indigenous Bontoc Children's Rhymes
1. Types of Teaching Techniques refer to the particular teaching technique manifested by a teacher in the classroom. It is categorized into three types as introduced by Brown (2007). They are the free, the semi-controlled, and the controlled. The categorization of each teaching technique as collected from the respondents is shown on the table below.

Table 9: Types of Teaching Techniques as used for the Rhymes

Types of Teaching Techniques	Teaching Techniques	Definition	Rhyme
Controlled Techniques	Warm up	This activity gets the children motivated, attentive or otherwise engaged and ready for the lesson.	• *Mangan Ka's Enpa-engngan* • *Menda-op Kau Kuma*
	Reading Aloud	Reading directly from the given text	• *Esa, Chuwa* • *Pinesha, Pinchuwa*
	Translation	The teachers provision of L2 translation of the given text	• *Pin-esha,* • *Pin-chuwa* • *Maseyep ka Bibi*
	Review	Teacher-led review of the previous lesson	
	Context Explanation	The teacher explains the text first.	

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	Context Explanation	The teacher explains the text first.	

The findings in the table above indicate that most of the selected rhymes were designed to be taught with controlled teaching techniques. These rhymes were taught by the teacher with her actual teaching techniques that focused on warm up, reading aloud, translation, context explanation and review. However, the types of teaching techniques that were used by the interviewed teachers were on both the controlled and the semi-controlled. Only two from among the selected rhymes were under the free teaching technique of which the children can sing and play these without the supervision of the teacher.

2. Types of Teaching Resources refer to the teaching resources that the teacher consults with in the teacher's guides. The types of teaching resources are categorized into the following:

a. Provision of Translation that refers to the provision of translated Bontok language text to English language text.

With regard to the featured characteristics of the children's rhymes in the Bontok mother tongue, it showed a significant difference indicating that the lyrics, rhythm, and melody are very far different or it will not give the usual rhythm and melody that the original rhyme gives from its English language translation. According to Mrs. Beverly Fagyan of the Bontoc Elementary School, "It is best that these rhymes be sung the way it was composed in the mother tongue. Translation in English will only be used in vocabulary."

b. Provision of additional materials refers to the supplementary teaching materials.

Table 10: Suggested Supplementary teaching materials for the Bontok Children's Rhymes

Bontok Children's Rhymes	Suggested Supplementary teaching materials
A. Lullaby	
a. *Maseyep ka Bibi* b. *Ayye-es* c. *Maseyep Ka* d. *Litem, Litem* e. *Ama, Ama*	1. Pictures 2. Worksheets 3. Video clips (depends upon the availability of LCD)
B. Dandling Rhyme	
a. *Buwan, Buwan* b. *Tilin, Tilin* c. *Kinek, Kinek* d. *Shoprano*	1. Available textbook with colorful illustrations 2. Worksheets 3. Video clips (depends upon the availability of the LCD)
C. Game - Rhymes	
a. *Tabtabukallo* b. *Piti-piti, Kurdalin*	1. Pictures illustrating the games step-by-step
D. Counting Rhyme	
1. *Esa, Chuwa* 2. *Pinesha, Pinchuwa*	1. Pictures illustrating the numbers

The Educational Effects of Indigenous Bontoc Children's Rhymes in Elementary Teaching and Learning

The following will provide a discussion on the educational effects of the selected indigenous Bontok children's rhymes in elementary teaching and learning for the K12 curriculum,

On Language Acquisition

The use of the Bontok indigenous rhymes will provide an input on mother tongue acquisition for the young learners. Much more on its translated version on the English language that enhances the children's vocabulary in the language learning. From the discussion of the selected informants, it was mentioned that rhymes will never be out from each primary teacher's lesson plans for they are found to have a promising possibilities of acting as an effective language input because the input provided and selected by the teachers are manageable even for the beginning learners. The use of rhymes as motivations further is precious inputs to the children as they encourage them to develop language skills and to learn various language aspects such as rhythm, rhyme, intonation, vocabulary, and the sentence patterns.

For instance, after listening and applying these rhymes inside the classroom or outside the classroom in school, the melody and lyrics automatically and can constantly replay them in their minds.

On Affective Contributions

The Bontok children's rhymes can create a platform for learning to occur in the K12 curriculum because they are contributive to forming a friendly learning environment and enhancing the classroom atmosphere that is conducive to learning. These rhymes also create a welcoming and cooperative atmosphere inside the school premises which is vital for successful language learning.

On affective contributions of these indigenous Bontok rhymes, they arouse feelings that allow the children in the primary level to find singing and playing while singing an amusing and entertaining one.

On Cultural Contributions

The children's rhymes are the representation of the target culture and consequently form a "window" for learning cultural differences. The

teachers are encouraged to introduce the background of each rhyme so that the children can achieve a deeper comprehension of the Bontok culture. Remembering also that young learners are not mostly from the municipality of Bontok, although they are in fact from the municipality, it is obvious that mother tongue spoken in Bontok are not all similar from the barrios of Bontoc. With this, the learners took turns to interact appropriately in the Bontok culture context, perceive the cultural concept, get to know other classmates using the mother tongue language, and try to form and use the target language. To summarize, the Bontok children's rhymes are good avenues for the children to get in touch with the Bontok cultures and customs.

CONCLUSIONS

In this chapter, the major findings based upon the research questions and the discussions are summarized.

1. What are some popular indigenous Bontok children's rhymes and their uses and functions?

Under the Songs for children category, there are four sub-types that include the following: First, the lullabies and bedtime rhymes, of which there were only, five (5), of them. Secondly, four (4) rhymes were under the dandling rhymes which are sung to amuse or to entertain little young ones. Third, the didactic songs that are used to moralize or to give advices to the children are only two (2), and the second category is the Songs by the Children, which start from game – play songs and counting-out songs.

2. How are the content features of the indigenous Bontoc children's rhymes presented?

Based from the results of the rhymes selected in the coding scheme, the results indicated that all the selected 15 children's rhymes that are of Bontok origin were mostly rhymed, composed anonymously with life-related themes, presented with repetitive lines, phrases and words, and presented mostly with a combination of textual, pictorial, and musical modes of presentation. Since this is a type of rhyme in literature, it is therefore expected and obviously affirmed that rhymes and repetitions were dominantly used features in these rhymes. In terms of its language structure, since the findings were based from its mother tongue version, the research findings were controlled in order to be more comprehensible exclusively for the children in the primary level. The various techniques the teachers executed in their classroom setting provide both visual and auditory stimulants that quicken and deepen the comprehension of language inputs. To summarize, the presentation of the Bontok children's rhymes investigated from among all the selected informants for this study display the characteristic features of the Bontok children's rhymes and are especially concerned with the level of easiness for children's mother tongue and language learning.

3. How can these indigenous Bontoc children's rhymes be facilitated in the K12?

The findings on this problem were based from what were interviewed from the informants who were well-rounded in the teaching of children's rhymes in their fields. Firstly, the findings revealed that applying the selected rhymes in the classroom for the purpose of language development particularly on the mother tongue as well as on the English language surpasses the purpose of cultivating the aspects of learning the vernacular language as well as the culture and customs of the Bontok people. However, there is a great emphasis on developing language abilities on the use of these children's rhymes because they enhance affective and cultural contributions to language learning in the part of the young learners. Secondly, it was found out that not all the children's rhymes were designed as a stand-alone activity by using various kinds of controlled teaching techniques. From among the controlled teaching techniques gathered from the informants, they are more on the usual teaching techniques that facilitates a basic level of language proficiency.

4. What are the educational effects of applying Indigenous Bontoc children's rhymes in elementary teaching and learning?

The use of the Bontok indigenous rhymes will provide an input on mother tongue acquisition for the young learners. Much more on its translated version on the English language that enhances the children's vocabulary in the language learning.

The Bontok children's rhymes can create a platform for learning to occur in the K12 curriculum because they are contributive to forming a friendly learning environment and enhancing the classroom atmosphere that is conducive to learning. These rhymes also create a welcoming and cooperative atmosphere inside the school premises which is vital for successful language learning.

The children's rhymes are the representation of the target culture and consequently form a "window" for learning cultural differences. The teachers are encouraged to introduce the background of each rhyme so that the children can achieve a deeper comprehension of the Bontok culture.

IMPLICATIONS AND RECOMMENDATIONS

Due to the fact that mother tongue is already a part of the K-12 curriculum in the primary level, it is hoped that children under this level are equipped with the ability to use the mother tongue effectively and communicatively and to expand their cultural views of Bontoc. Through these Bontok children's rhymes, the children are expected to extend their awareness not only on Bontok literacy but also awareness on Bontok's customs and traditions. Among the various teaching materials and instructional designs done by teachers in the elementary level, these rhymes are viewed as a literary genre that opens the window for young learners to achieve their goals.

Textbooks using songs and rhymes written in the context of native speakers should be included in the instructional design for teachers.

Different sources of data collection should also be included so as to reinforce the findings in this present study. For in this study, there were only limited informants that were interviewed and observed.

On the other hand, further research should also make an effort to examine the various classifications of children rhyme analyses. Investigation of issues such as musicality, rhythmic organization, phonological phrasing, the suitability of rhymes for learners, and the variety of teaching activities for children's rhymes are also recommended.

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DESIGN AND DEVELOPMENT OF DUAL-HEAT SOURCE MULTI-COMMODITY DRYER

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ABSTRACT

Some high quality fruits, root crops and vegetables are seasonal. To ensure sustainable supply of these products, food preservation such as food drying and incubation are needed. The traditional sun drying practice may expose the food product to foreign substances and limiting time during the drying process. Thus, the study aimed to design and construct a dual- heat source multi-commodity food dyer; determine its functionality; and evaluate its advantages over that of manual sun drying. The researchers used the descriptive developmental and experimental methods of research to come up with a device used for drying multi-commodity. The output was subjected to testing by drying several commodities to determine its functionality and performance. As a result, the prototype was designed and constructed for household and small- scale food manufacturing purpose. There is a maintained temperature adjustable to the required temperature by the commodity being dried. It is equipped with photovoltaic cell used to charge the battery to supply energy to the exhaust fan while drying. It is more advantageous compared to manual sun drying in terms of food hygiene, temperature that is adjustable to what is required by the commodity being dried and the use of renewable energy. It was concluded that the dual-heat source multi-commodity food dryer is functional, usable and efficient. The researcher recommended that the prototype requires further testing and evaluation using other food products. It should also be evaluated using other heating elements to enhance energy conservation.

Key words: Food dryer, dual heat source, developmental study

Introduction

The first and most important of the United Nation's development goals is to eradicate extreme poverty. In order to succeed in this first goal, the UN had set a number of new goals such as increase the regional and international cooperation on food security, reduce distortions in trade, ensure social safety nets in case of economic slowdowns worldwide, increase emergency food aid, promote school feeding programs, and assist developing countries in switching from subsistence agriculture to a system that will provide more for the long-term as stated by Briney (2015). These are pursued to encourage producers to produce more supply of food to sustain the need of the population.

Philippines is an agricultural country where some high value fruits, root crops and vegetables are seasonal which usually last for only a few weeks or months each year. To ensure that there is sustainable supply of these fruits, root crops and vegetables, food preservation and processing need to be done like food drying and incubation. Drying apparatus for food are known in the art. This is a very important device in food processing as the primary phase in producing numerous by-products using raw materials. It likewise lengthens the shelf life of food. Drying is the process of reducing moisture content up to the storage limit. There are drying apparatus that are used in drying high volume of food materials. However, these apparatus have single heat source, thus entail high cost in the drying process. The traditional way of sun drying is done by placing the food in an open pan and exposing it to sun light. However, this practice may expose the food to foreign substance during the process. This method of sun drying is also supported by E Asad (2008). According to E Asad, sun-drying method is an efficient and cheap process but has disadvantages too such as food is prone to contamination by dirt, insects and bacteria and may be lost due to wetting by rain squalls. These are usually accepted as inherent part of the method of processing. In or-

der to protect the products from the above-mentioned disadvantages and also to accelerate the time for drying the products, control the final moisture and reduce wastage through bacterial action E. Asad (2008) designed a dryer using the heat transferred to the surface of material by conduction and convection from adjacent air at temperature above that of the material being dried. However, it has only one source of heat which is the heat from the sun. Sun drying has limitations on drying time due to weather disturbances thus, need longer time to dry the food. Some food products require constant temperature in drying to avoid discoloration. In this premise, the researchers developed a Dual-heat source multi-commodity food dryer to addresses the problems or limitations of sun drying of food.

Review of related literature

The 1987 Philippine Constitution Section 15, Article II declares that the State shall protect and promote the right to health of the people and instill health consciousness among them. Furthermore, Section 9, Article XVI provides that the State shall protect consumers from trade malpractices and from substandard or hazardous products. Toward these ends, the State shall maintain a farm to fork food safety regulatory system that ensures a high level of food safety promotes fair trade and advances the global competitiveness of Philippine foods and food products.

The LGUs shall be responsible for the enforcement of the "Code on Sanitation of the Philippines" (P. D.No. 856, December 23, 1975), food safety standards and food safety regulations where food is produced, processed, prepared and/or sold in their territorial jurisdiction.

The above cited literatures all concern about health protection of people. They further cited good hygienic practices among food handlers to ensure the safety and suitability of food at all stages in the food chain. The present study also promotes food hygienic practices by means of drying.

Solar Energy Laboratory, Iranian Research Organization for Science & Technology (IROST) developed a design and experimental study on solar agricultural dryer for rural area that was used for drying various products in rural area under hygienic conditions. The solar drying system was constructed, consisting of two parts (solar collector and solar drying cabinet). Solar collector with area of 1.2m2 (1.2mx1mx0.2m) has black painted rocks to absorb solar radiation and a cabinet that is divided into five

divisions separated by four removable shelves. Each shelf is 0.3m width and 0.5m length and made of nylon wire net framed in wooden border. Three sides of the drying chamber walls are covered by fiberglass sheet and a door in the back to protect food being dried. The reviewed study is found similar to the present study since both aim to protect the quality and content of the food being dried. However the previous study used only one source of heat while the present use dual source of heat.

Objectives

The study aimed to design and construct a dual heat-source multi-commodity food dyer; determine the functionality of maintaining and adjusting of temperature required by the food being dried; and evaluate the advantages of dual heat-source multi-commodity food dyer as compared to manual drying.

Methods

This study used the descriptive developmental and experimental methods of research, to be able to make or come up with a device that serves the purpose stated above. Developmental and experimental methods of research aided the researchers in making the desired prototype which was then subjected to testing by drying several commodities/raw materials to determine the performance of the dryer.

Findings

The present invention is about a Dual-heat source Multi-commodity food dryer. It is used to dry multi-commodity food products using solar energy. Since solar energy is intermittent, it has a backup source to sustain the heat inside cabinet to avoid discoloration of food being dried and accelerate the time for drying. Upon drying the commodity direct from the sun, it has a solar panel used to charge the battery to energize the exhaust fan. This exhaust fan drives the moisture content of the commodity going out of dryer to hasten the drying process. In time that there is decrease of temperature inside the dryer due to the decrease of ambient temperature cause by unpredictable rain, the backup heat source will activate to sustain the required temperature of the commodity being dried. Through this, it was observed that the required temperature for drying was not affected and that the temperature inside the cabinet was sustained.
The dual heat-source multi-commodity food dyer was designed and constructed in

designed and constructed in accordance to household purpose of drying to address the problems of small scale food manufactures as shown in figure 1 and 2. The temperature was maintained and it can also be adjusted then set to the required temperature of the commodity being dried. The dual heat-source multi-commodity food dyer is equipped with photovoltaic cell that is used to charge the battery to supply exhaust fan while drying. It is more advantageous compared to manual sun drying in terms of food hygiene and energy conservation. Plate 1 shows that the dual heat-source multi-commodity food dyer was functional. The thermostat can regulate the temperature inside the dryer cabinet for drying and it usable for small scale drying.

Figure 1. Brief Description OF Dual-Heat Source

Legend
1. Dual heat source multi Commodity food dryer
2. Solar Panel
3. Charging system compartment
4. Raw food container holder
5. Exhaust fan
6. Halogen lamps
7. Air inlet
8. Adjustable electromechanical Thermostat
9. Clear glass cover
10. Unidirectional wheels
11. Food trays
12. Food trays rack

Multi-commodity Food Dryer

Legend
1. Dual heat source multi Commodity food dryer
2. Solar Panel
3. Charging system compartment
4. Raw food container holder
5. Exhaust fan
6. Halogen lamps
7. Air inlet
8. Adjustable electromechanical Thermostat
9. Clear glass cover
10. Unidirectional wheels
11. Food trays
12. Food trays rack

Figure 2. Aerial view of Dual-Heat Source Multi-commodity Food Dryer

Plate 1. Documentation during testing of Dual heat source Multi

Commodity food dryer

Plate 2. Dried products made in Dual heat source Multi-Commodity food dryer

Table 1. Comparison of Dual Heat Source Multi-Commodity Food Dryer to a Traditional Manual

Traditional /Manual Drying	Dual-Heat Source Multi-commodity Food Dryer
Leaves Dried for 7 hours	Leaves Dried for 4 hours
Decorative flowers for cake Dried for 7 hours	Decorative candy flowers for cake Dried for 4 hours
Affected by low temperature resulting to discoloration of the raw materials	Not affected by low temperature resulting to a good quality products
Expose to impurities	Free from impurities
Only serves as Dryer	Serves as dryer and yogurt incubator
Single source of heat	Dual source of heat
No provision for transportation	Easy to maneuver and transport

The comparison of Dual heat source multi-commodity food dryer to a Traditional manual drying is shown in table 1. It was found out that the Dual heat source multi-commodity food dryer is more advantageous to a Traditional manual drying in terms of speed in drying leaves, decorative candy flowers for cake with same moisture content, the materials being dried were free from impurities because the raw materials were covered by a glass, not affected by variable temperature because of sensitive thermostat used to trigger the shifting of heat sources. Due to its capability to maintain temperature from 35 degree Celsius up 55 degree Celsius, then it could be used to incubate yogurt. The new develop dryer was easy to maneuver and transport because of the caster wheels.

Conclusion:

Dual Heat Source Multi-commodity Food Dryer is functional, usable and efficient to dry food products.

Recommendation:

Dual Heat Source Multi-commodity Food Dryer requires further testing and evaluation using other food products as well as evaluation using other heating elements to enhance energy conservation.

Key words: Food dryer, dual heat source, developmental study

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Graduates Employability: Implications To Enhanced Competency Based Curriculum

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Abstract

JRMSU –Katipunan, Zamboangadel Norte graduates are trained and developed to acquire competency skills for them to be prepared in the field of employment. This tracer study established the profile of graduates from 2009-2014. At the same time,identified the competencies acquired from the university as used in their job and determined their job relevance to their undergraduate degree program. A descriptive method was used to analyze data including the use of frequencies and percentage. Result showed that 66.71% of the 70% of the graduates were gainfully employed. Most of the graduates landed a job six months after graduation and served as casual and contractual employees. Graduates having permanent status were the licensed teachers. Graduates who were unemployed decided to settle family concerns and those who were underemployed took advantage of any job available. Among the gained competencies useful at work were communication skills (69.55%), human relations (64.87%) and information technology skills (62.99%). Majority (66.7%) of the graduates accepted jobs that were related to their undergraduate degree and felt satisfied since the trainings they undergone were very relevant to their workplace. In order to maintain graduates' employability, the university must provide higher order thinking skills like problem solving skills, critical thinking skills and research skills to the studentsto make them more globally competitive. Thus, the facilities provided must be upgraded. The curriculum must also be reviewed and faculty development should be strengthened. Further, tie-ups with agencies and companies outside the province should be established to strengthen linkage.

Keywords: tracer study, competencies, employability

Introduction

Employability or work-readiness is a strength that potential employers are looking for in newly hired employees (Macatangay, 2013). In the past, employability followed the old model of employers hiring expectation which meant higher chances of acquiring jobs basing on academic skills. Currently, employers recognize the significance of acquiring academic, personal management and teamwork. Furthermore, employability skills are generic skills wherein skills acquired in college are transferred when employed (Rosenberg et al., 2012).

In the Philippines, more graduates are forced to accept jobs not fitted to their field of specialization while other graduates have less competencies expected at work. Either way, employers find it difficult to hire employees especially, the fresh graduates. Underemployment and job mismatch has been a pressing concern of the country. When there are more jobs available in the market, there are also lesser number of qualified graduates fitted to the job. Through the Executive Order # 83, series of 2012, DepEd, CHED, TESDA, PRC and DOLE are mandated to review learning standards in basic education, technical skills development and higher education and in the alignment of licensure examination. These agencies are working hand in hand to address the issue on job mismatch and assist students to choose the right course that meets the demand of the market.

To address the issue on job mismatch, through CHED, universities and colleges are required to conduct Tracer studies. It is a survey of graduates from the institution of higher education which aims to analyze the relationship

from the institution of higher education which aims to analyze the relationship between higher education learning and work. At the same time, understanding graduates' acquired competencies and skills related to their professional lives. Gines (2014) cited in their study that skills and competencies provided in college greatly facilitate graduates to become productive and efficient at work. Also, Ramirez et al (2014) mentioned that skills gained in college increase chances of employment. In order for graduates to have jobs and overcome underemployment, skills enhancement will be needed.

JRMSU-Katipunan campus had minimal knowledge of the graduates' employability and tracing the exact whereabouts of graduates from batch 2009-2014. There was an initial tracer conducted but was limited only to the employment status of the graduates. Thus, the study gave less understanding about the graduates and their work.

In this study, graduates' profile was established. Also, employability of graduates was determined including their competencies used in the workplace and examined the relevance of the earned degree to their work. Through this, the university would be able to revisit and enact enhancement on the programs to bring about the match in competencies needed for employment.

Objectives

The study determined the following:

1. To establish profile of JRMSU-Katipunan campus graduates in terms of:
   a. Gender
   b. Age
   c. First Job after graduation
   d. Employment status
   e. Nature of employment
   f. Monthly Income
   g. Reasons of unemployment
   h. Reasons of underemployment

2. To identify competencies that are gained from the university that is necessary in the work
   a. Communication skills
   b. Human relation skills
   c. Information technology skills
   d. Management skills
   e. Teaching skills
   f. Entrepreneurial skills
   g. Analytical Skills

3. To determine the relevance of the course to current job function.
   4. To assess graduates' suggestions and recommendations.

Methodology

The study used a descriptive design since it aimed to determine the profile of graduates, their employability, competencies acquired from the university and relevance of the course to the job. Ten undergraduate programs offered by the campus were included. There were 536 graduates from SY 2009-2014, but only 70% or the 427of the graduates were considered participants of the study.

A master list of graduates was requested from the Registrar's Office to ensure participants of the study. Convenience sampling was used in the selection of participants. Graduates who responded to messages and calls were automatically included as participants. Data was gathered through a survey questionnaire. The questionnaire was sent in various ways specifically through facebook.com. In case a graduate do not have a facebook account, phone interview and personal interview was conducted. The questionnaire consists of 33 items with three parts namely: Part I is personal data, Part II is employment data and Part III is suggestions or recommendations.

For the analysis of data, the researchers used the Statistical Package for Social Sciences Software or SPSS to organize, process and generate answers to the objectives to be investigated. Furthermore, percentage and frequency were used to interpret the data.

Results and Discussion

The study aimed to have a better understanding of the graduates' employability including the graduates' profile to give an idea about the graduates.

Table 1 Profile of Graduates

Table 1.1 Frequency and Percentage Distribution of Participants According to Gender
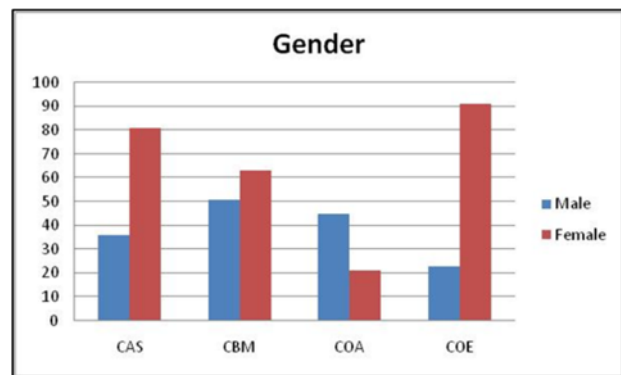
Table 1.1 shows that out of the 427 participants there were 155 male graduate participants and 256 female graduate participants. More female participants responded to answer the questionnaire compared with males. It was evident that there were more female graduates from the College of Education than males while the College of Agriculture had more male graduates than females. As a misconception, there were more female graduates from the College of Education because it was considered as a female dominated program. The same with why there were more males in the College of Agriculture because it was known as a male dominated program.

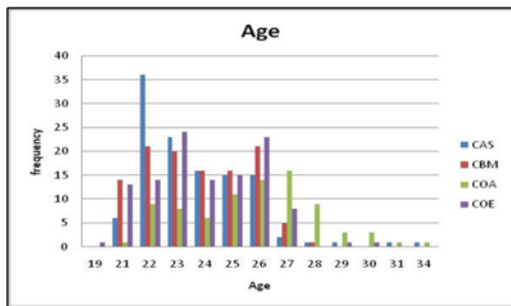*Table 1.1 Frequency and Percentage Distribution of Participants According to Gender*

Table 1.2 shows that most of the graduates were in the age of 22- 26. There were more young graduates in the College of Education. The college with varied age were the COA and CAS both had graduates who were older than their expected age during the study. Most of the graduates were returnees and some already have families, but are decided to pursue college degree. Others were financially challenged and had difficulty finding means to send themselves to school. Graduates of the campus were older than the regular aged college students basically, due to poverty.

Table 1.3 Frequency and Percentage Distribution of Participants According to First Job After Graduation
Table 1.3 suggests that majority of the graduates acquired jobs in less than 6 months after graduation. Most graduates were observed aggressive in looking

First Job After Graduation	Frequency				Percent
	CAS	CBM	COA	COE	
Less than 6 months	34	75	40	57	48.24%
6 to 1 year	24	23	20	32	23.18%
1 to 2 years	16	6	9	6	8.67%
2 or more years	7	0	2	0	2.11%
others	3	0	0	0	0.70%

for jobs after graduation. In addition, finishing a degree is a means of social mobility to most families

that's why graduates were pressured to get jobs.

Table 1.4 Frequency and Percentage Distribution of Participants According to Employment Status
Table 1.4 shows that most of the graduates
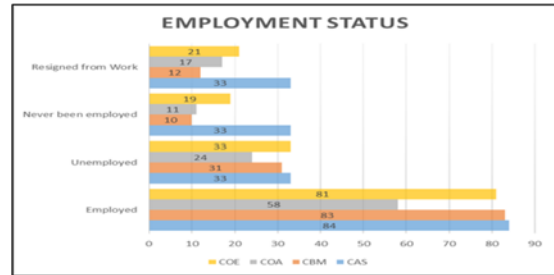
were employed by the time of the survey. There were some graduates who were not employed. There are also a few who resigned from work and the least percentage were those who were never been employed. While more of the graduates were employed, there were still 17.10 % who were never been employed.

Table 1.5 Frequency and Percentage Distribution of Participants According to Nature of Employment
Table 1.5 suggests that most of the graduates employed have a contractual status. Graduates having regular employment were mostly from the College of Education as professional teachers. The profession were mostly offered regular items once hired by the

Nature of Employment	Frequency				Percent
	CAS	CBM	COA	COE	
Regular/Permanent	7	31	12	39	20.84%
Temporary	14	1	7	8	7.03%
Contractual	19	58	28	34	32.55%
Self-employed	16	9	1	4	7.03%
Casual	28	3	17	8	13.11%

DepEd. A few of the graduates have temporary status and were self-employed.

Table 1.6 Frequency and Percentage Distribution of Participants According to Monthly Income
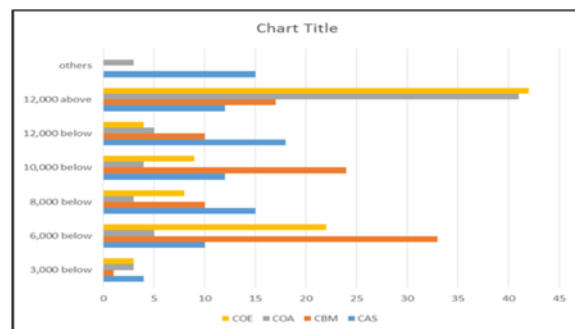
Table 1.6 shows the monthly income of the graduates. Most of the graduates have income above Php 12,000.00. The lowest income received by the graduates is below Php 3,000.00. The salary reflects the provincial rate salary since most of the graduates were employed within the province of Zamboanga del Norte.

Table 1.7 Frequency and Percentage Distribution of Participants According to Reasons of Unemployment

Table 1.7 shows that majority of the graduates' reason of unemployment was due to attending family concerns. Some of the graduates did not look for a job, others lack work experience and some enrolled in advance study. The least reason for being unemployed was health related. It is a culturally bound trait of setting aside personal concerns in order to cater to the needs of the family. Instead of working to earn a living, some decided to stick with family concerns as a way of giving back and expressing love.

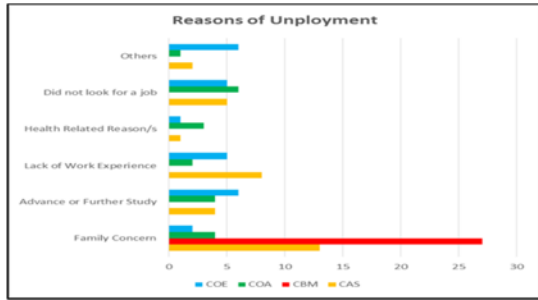*Table 1.8 Frequency and Percentage Distribution of Participants According Reasons of Taking a Job not related to the course*

Reasons of Taking a Job not related to the Course	Frequency				Percent
	CAS	CBM	COA	COE	
Could not get satisfactory job in the field	30	1	0	1	27.12%
Inadequate Training	9	0	0	0	7.63%
Opening in this field	11	16	14	22	53.39%
Others	8	1	1	4	11.86%

Table 1.8 suggests that graduates' reason for accepting jobs not related to their course was due to the opening of a job in the field. Some experienced not getting satisfactory job related to the degree and the least is inadequate training in college. Graduates opted to accept jobs not related to their degree because having a job and earning money is more important, more practical. Those who were dissatisfied with their work in line with their field decided to acquire jobs not in their specialization. With this, train-

ing provided by the university was not a question when it comes to underemployment.

Table 2 Frequency and Percentage Distribution of Participants According Competencies Gained

Table 2 shows the skills acquired by gradu-

Competencies	Frequency by Program										%
	BSIM	BSCS	BSAM	BSHRM	BSED	BEED	BAT	BSA	BSAE	BSF	
Communication	31	35	22	68	24	57	12	13	20	15	69.55
Human Relation	26	37	20	65	18	48	12	12	24	15	64.87
Information Technology	51	66	17	47	14	28	4	11	17	14	62.99
Management	7	7	19	59	3	17	10	9	16	15	37.93
Teaching	5	4	9	35	29	38	8	8	13	14	38.17
Entrepreneurship	2	2	17	52	10	42	8	6	10	9	37
Analytical	23	27	14	42	10	35	10	6	11	4	42.62
Others	15	20	11	28	20	51	9	8	13	8	42.86

ates from the university as it was used at work. Among the skills, communication ranked first, followed by human relation skills and information technology skills ranked third. Communication skill was considered as one of the most important skills (Rosenberg et al., 2012). This skill can be oral and written, both were of much use in everyday work routine. While human relation skill was a major quality aspired in the workplace (Petryni, 2013) as it foster teamwork, retention and motivation. With the technological advances nowadays, it is a must that employees must have knowledge on using technological equipments and basic computer knowledge.

Table 3 Frequency and Percentage Distribution of Participants According to Job Relevance

Table 3 shows that most of the graduates find their jobs related to their undergraduate degree. Most of them were working in line with their
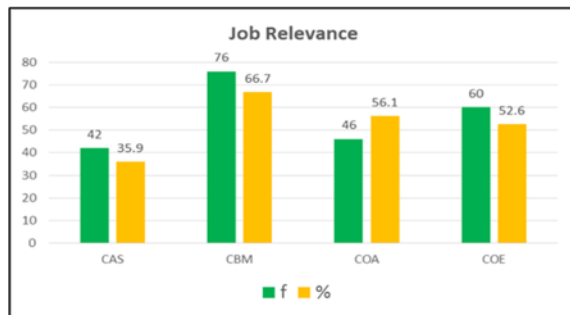
specialization. Thus, knowledge and skills acquired from the university was relevant to work. This could be attributed to the result that communication skills , human relation skills and information technology skills were the three highest skills identified by the graduates. As acquired in the university that is currently used in their jobs.

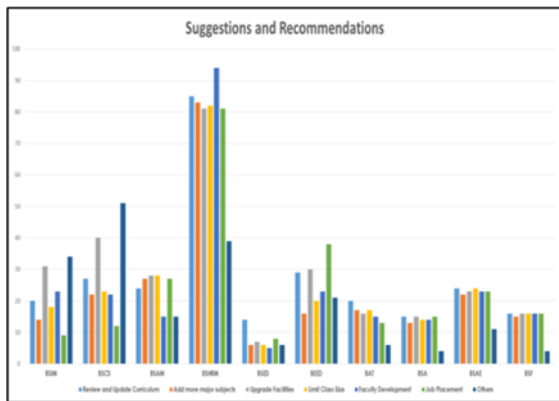*Table 4 Frequency and Percentage Distribution of Participants According to Suggestions and Recommendations*

Table 4 suggests that based on the graduates' observation, upgrading facilities should be of priority. This is to keep abreast with the latest trends in instruction that would be useful at work. Furthermore, graduates suggest that the curriculum should be reviewed and updated to ensure students' quality in the acquisition of knowledge and skills. In order to keep up with the trend, faculty members should be provided with trainings and seminars which would enrich and suffice instruction.

Findings

This study is a means of evaluating the quality of education of JRMSU-Katipunan Campus as a higher education institution. Through this, graduates were able to help the university in improving its ways in order to achieve its mission and vision. The following were the findings of the study:

1. Based on gender, there were more male graduates from the College of Agriculture and more female graduates from the College of Education. Still there was the existence of male-dominated and female dominated programs in terms of number of graduates.

2. Based on age, most graduates were beyond the expected age of finishing college. Being located in the municipality, it was recorded that students were not regular aged college students. Some of the graduates were self-sufficient and some others already have families of their own who have decided to pursue college.

3. Even with a high rate of employment within the province. It should be noted that graduates' need employment anywhere in the country and even anywhere in the world.

4. The competencies necessary in their work that were acquired from the university were communication skills, human relation skills and information technology skills. There were more skills that needed to be included in the curriculum.

5. Most of the graduates consider their jobs relevant to their field of specialization. However, some of them had difficulty finding satisfactory job related to their field. That's why other graduates decided to accept jobs not related to their field as it was more practical.

6. Graduates suggested that facilities be upgraded to keep abreast with the latest trend. In addition, curriculum must be reviewed and developed. Also, it was suggested that faculty development be strengthened in order to compliment the facilities.

Conclusion

Based on the result, the study therefore conclude the following:

1. JRMSU-Katipunan graduates were gainfully employed and were employed in less than six months. Mostly were under contractual status and with income above Php 12,000.00. Graduates holding permanent status in employment were mostly licensed teachers. However, most of the graduates were employed within the province of Zamboanga del Norte.

2. Most of the graduates who were not working at the time of the study decided to attend to concerns of the family.

3. Competencies gained from the university that were useful in their work were communication skills, human relation skills and information technology skills. However, other skills must be integrated in the curriculum such as research skills, critical thinking skills and problem-solving skills. These skills were important in the workplace. These make graduates more employable even without experience.

graduates more employable even without experience.

4. Graduates who were underemployed accepted jobs because they needed to earn a living regardless if it is not in their line of specialization.

5. Even with the small percentage of graduates working not in line with their specialization, tie-ups must be strengthened outside of the province and even abroad to ensure graduates' employability. Pre-employment activities must be conducted in order for graduates to keep up with the job hunting demands.

6. Based on the result, the campus needs to upgrade facilities. Also, there is a need to review and update the curriculum. It is high time that skills and competencies must be included to better match the job market. Along with this, faculty development program must be strengthened.

Recommendation

With the results of the study**,** it is recommended that:

1. The research design may be improved to explore on other details.
2. Job Placement activities such as Job Fair could be conducted in order to make graduates competitive national and even global.
3. Other skills helpful to gain employment such as research skills, critical thinking skills and problem-solving skills should be included in the curriculum for future research.
4. Reasons of unemployment may be further studied to look deeper into the causes.
5. The manner of acquiring the job must also be included for further research studies.
6. The faculty development program must be strengthened to compliment the skills that must be acquired by students.

Acknowledgment

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Pre-Service Teaching Competence and Board Performance: How One Year Student Teaching Matters?

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ABSTRACT

*The thrust of teacher education is to develop the teaching efficacy of the Pre-Service Teachers (PSTs) to ensure their passing performance in the Licensure Examinations for Teachers (LET) and enhance their entry into professional teaching. Towards this thrust, how One Year Student Teaching (OYST) matters? This descriptive correlational research explored the teaching competence of the sampled PSTs in OYST during the Academic Year 2012-2013, and looked into their performance in the LET in 2013 and 2014. Completed in October 2015, the PSTs and their Supervising Teachers (STs) assessed the teaching competence in the professional, technical, and personal-social areas using the 74-item validated Student Teaching Performance Evaluation Instrument. Means and standards deviations were used for descriptive analyses. For inferential analyses set at .05 level of significance, t-test for independent samples, t-test for correlated samples, **Pearson's r** and ANOVA including Tukey test as post hoc test were used. Computer-processed data showed that generally, the PSTs saw themselves to be possessing very high level of teaching competence in both semesters of training, although their STs rated it to a high level which is one level lower than their self-rating. The immersion of the PSTs to another semester of student teaching all the more improved their teaching competence. The programs they enrolled in, their specializations, and the student teaching periods are factors in the development of their teaching competence. Whether they are BEEd or BSEd PSTs did not affect their performance in the LET but their specializations did. Generally, they were average performers in the three components of the LET, although the TLE, MAPEH, and General Education groups fell below the passing mark. The teaching competence they demonstrated in OYST significantly influenced theirperformance in the LET.*

Keywords: *one year student teaching, pre-service teaching competence, board performance*

INTRODUCTION

Teacher Education Institutions (TEIs) are tasked to produce teaching practitioners through quality Teacher Education Programs (TEPs). One mark of quality is gauged in the graduates who possess necessary teaching competence and passing performance in the LET to be allowed entry into the teaching profession. The rigid entry requirements underscore the fact that professional teaching is demanding as teaching practitioners should clearly understand what should be done to bring about the most desirable learning in the students and be highly proficient in the skills necessary to carry out these tasks (www.journals.savap.org.pk).

The Commission in Higher Education (CHED) emphasizes that all efforts to improve the quality of education are dependent on the service of teachers who are properly prepared to undertake the various important roles and functions of teachers. As such, it is of utmost importance that the highest standards are set in defining the objectives, components, and processes of the pre-service teacher education curriculum (CMO No. 30, s. 2004). It is necessary that the PSTs get the right training and be equipped with the needed competence before they join the teaching force (Dinagsao, 2013). In the actual teaching field, teachers who have had more preparation for teaching are more confident and successful with students than those who have little (Hammond, 2000).

With the enactment of Republic Act 7836, the "Philippine Teachers Professionalization Act of 1994" all the more sets a rigid screening mechanism for entrants to the teaching profession to ensure that only those who passed the LET, with valid certificate of registration and valid professional license be allowed to practice their teaching profession (Article IV, Section 27). The LET, administered by the Philippine Regulatory Commission (PRC), serves as a gauge of the effectiveness of the delivery of the teacher education curriculum completed by the teacher applicants and a quality assurance to those who enter the teaching profession. It is designed to protect the public by ensuring that graduates are allowed to practice the teaching profession after they have met the requirements of becoming teachers. Performance in the LET is one major indicator of quality and excellence (Gerundio & Balagtas, 2014).

Many teacher educators continue to look for effective ways to better prepare future teachers for the students they will encounter in the classroom. A continuing concern for teacher educators is how to improve the effectiveness of student teaching and demonstrate the benefits of the program to prospective teachers (Buitink, 2009).

Amid all efforts to improve the TEP is the question as to whether the PSTs are ready for the job. In an effort to prepare the PSTs to be more responsive to the demands of the teaching profession, the College as research venue, has embraced program accreditation and has undergone continuous curricular development. Among others, the lengthening of student teaching to two semesters for both the BEEd and BEEd TEPs is a milestone in this continuous improvement. OYST took initial implementation during Academic Year 2009- 2010. In March 2013, the pioneer graduates of this program earned their degrees and majority of them took the LET in September 2013 and some in January 2014. How teaching competence and LET performance interplay in the picture can provide empirical data to demonstrate the contribution of the OYST to the development of teaching competence among PSTs, to validate better prospect for passing the LET, and for curricular development in teacher education.

Statement of the Problems

This study sought answers to the following questions:

1. What is the level of teaching competence of the Pre-Service Teachers (PSTs) in One Year Student Teaching (OYST) as assessed by them when they are taken as entire group and when classified as to programs, training periods and specializations?

2. What is the level of teaching competence of the PSTs in OYST as assessed by the Supervising Teachers (STs) when the PSTs are taken as entire group and when classified as to programs, training periods and specializations?

3. What is the level of their performance in the three curricular components of the LET, namely, General Education, Professional Education, and Major Courses when they are taken as entire group and when classified as to programs and specializations?

4. How does the teaching competence of the PSTs in OYST differ as assessed by them when they are classified as to program, training periods and specializations?

5. How does the teaching competence of the PSTs in OYST differ as assessed by the STs when the PSTs are classified as to programs, training periods and specializations?

6. How does the performance in the LET differ when the graduates are classified as to programs and specializations?

7. How does the teaching competence of the PSTs in OYST as assessed by the STs relate with their performance in the LET?

Theoretical / Conceptual Framework

All academic thrusts in teacher training underscore the fact that the teachers are the main pillar of the educational system (Kant, 2011). As it is, the development of teaching skills or teaching competence of the PSTs is directed towards developing their self-confidence and self-efficacy. Gibbs (2015) explains that the capacities of teachers to survive, to demonstrate resilience, persistence, and innovativeness are governed primarily by their beliefs about their capacity – that is their self-efficacy as teachers . Giallo and Little (2003) point out that the teachers who are the most effective classroom managers are the most confident in their abilities. Preparedness and classroom experiences are factors that are involved in the development and maintenance of teacher self efficacy.

A better understanding of the development of self-confidence and its influence on behavior and performance can be gleaned from the Theory of Self- Efficacy of Bandura (1986). Self-efficacy, in this perspective, is conceptualized by Bandura as a person's judgment of his/her ability to execute successfully a behavior required to produce certain outcomes. Giallo and Little (2003) elucidate that behavior is influenced not only by the belief that a particular action will lead to desirable outcomes, but also by the belief that one has the ability to perform the action. Bandura (1986) speaks of this ability to persist in difficult situations – a belief that determines how a person thinks, behave, and feel.

The teacher's sense of efficacy is an important variable in teacher development and how teachers teach (Moran et al., 1998; in Knobloch, 2006). How to improve effectiveness of student teaching as component of pre-service education such that it prepares prospective teachers with necessary ability, confidence or self-efficacy becomes a continuing concern for teacher educators (Buitink, 2009). Within the pre-service teacher education program, the prospective teachers are immersed to various trainings that culminate in student teaching, which is considered to be the most significant component of teacher preparation programs (Plourde, 2002). Its primary goal is to provide the opportunity for acquisition and demonstration of instructional competence for beginning professional educators (www.utpa.educ/ colleges/ coe).

Teaching competence can be measured through mastery of content knowledge and pedagogical skills. A competent teacher should have the professional artistry to induce learning among students. Cognitive skills like critical thinking, creative thinking, and problem solving are required of the teacher (Dayagbil & others, 2012). In this study, the teaching competence of the PSTs is measured in the professional, technical, and personal-social competence areas and is linked with their performance in the LET. The LET is composed of three components namely, general education, professional education, and major courses for the Secondary TEP. The Elementary TEP graduates take the general education and professional education courses only. An examinee has to score not lower than 50% in any areas in order to pass the examination (http://educationteaching-careers.knoji.com). The schematic diagram below illustrates the conceptual framework of the study:
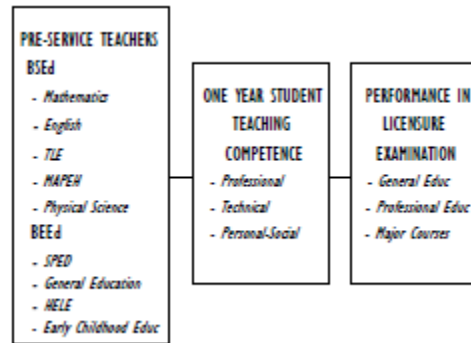
METHODOLOGY

Method of Research Used

This study used a descriptive-correlational type of research as it focused on the teaching competence demonstrated during the OYST as assessed by the PSTs themselves and on documentary analyses on their performance in OYST as gauged by the grades submitted by the STs at the end of the training, and on their scores obtained in the LET in September 2013 and January 2014.

Subjects / Respondents of the Study

The subject-respondents were the 171 PSTs enrolled in the Level III-AACCUP accredited BSEd and BEEd programs of Carlos Hilado Memorial State College (CHMSC) in Talisay City, Negros Occidental, Philippines. The sample represented the total population of 299 PSTs during the Academic Year 2012-2013. The sample size was computed using the formula of Pagoso (1992). Using stratified random sampling technique, the representative samples from the various specializations of the BSEd and BEEd programs were identified for this research (Table 1). Their respective STs were the sources of data in their capacity as evaluators of student teaching performance. The biggest number of subject-respondents came from the BEEd General Education majors (n=67) and the lowest number was represented by the BSEd MAPEH (n=22).

Table 1
Distribution of PSTs as to Programs & Specializations

Academic Programs	N	%	n
Overall	299	100	171
BSEd Program			
BSED - Mathematics	20	6.43	11
BSED - English	36	12.28	21
BSED - TLE	31	10.53	18
BSED - MAPEH	22	7.60	13
BSED - Physical Sci	27	8.77	15
BEEd Program			
BEED - SpEd	28	9.36	16
BEED - Gen Ed	67	22.22	38
BEED - HELE	36	12.28	21
BEED — ECE	32	10.53	18

Research Instrument and Sources of Data

The Student Teaching Performance Evaluation Instrument which has been used by the College since 2002 in the evaluation of teaching performance of the PSTs was used in this study. As an official document, this 74-itemed instrument covers three major teaching competence areas, namely, professional, technical, and personal-social aspects. The validity and reliability of the research instrument were established prior to its initial year of utilization in the Student Teaching Program of the College of Education. To ensure, however, of its reliability for the conduct of the present research, the instrument was reliability-tested among the thirty BSEd and BEEd students who were exposed to teaching demonstrations. The reliability index of 0.97 resulting from the use of Cronbach alpha indicated that the instrument had the capacity to elicit stable data. On the other hand, the performance in the board examination was sourced from the scores obtained in the LET in September 2013 and January 2014 which were requested by the College from the PRC in 2015.

Procedures for Data Analysis

In order to provide answers to the problems of the study, means and standard deviations were used as descriptive statistics. For inferential analyses set at .05 level of significance, t-test for independent samples, ttest for correlated samples, Analysis of Variance (ANOVA), and Pearson's Product Moment Coefficient of Correlation (PPM) were used. All data were computer-processed.

RESULTS AND DISCUSSIONS

Level of Teaching Competence

Generally, as assessed by themselves, the PSTs believed that they possess a very high level of teaching competence (M = 4.32) in OYST (Table 2). The same very high level of teaching competence was also obtained during the first and second semesters of training (Ms = 4.26 and 4.37, respectively).

When grouped as to program, the BEEd group exhibited a very high level of teaching competence both during the first and second semesters with means scores of 4.41and 4.43, respectively. Their

BSEd counterpart obtained a high level (M = 4.08) of teaching competence during the first semester. However, during the second semester, their teaching competence raised to a very high level (M = 4.30).

When classified as to specializations, the BEEd group with majors in General Education, HELE,ECE, and SPED exhibited a very high level of teaching competence both during their first and second semesters, with mean scores ranging from 4.29 to 4.45. All majors under the BSEd programs obtained a high level of teaching competence during the first phase of student teaching with mean scores ranging from 4.09 to 4.20. Except for TLE and MAPEH majors who maintained a high level of teaching competence, the English, Physical Science, and Mathematics groups raised their level of teaching competence to a very high level during the second phase of immersion to actual teaching with mean scores ranging from 4.15 to 4.40.

The SDs which ranged from 0.25 to 0.53 indicated a narrow dispersion of the scores indicating that the PSTs were homogeneous in their responses when asked about their level of teaching competence at the end of every semester of student teaching.

The findings were indicative that PSTs believed that after the two-semester exposure to student teaching, they acquired a favorable level of teaching skills and attributes needed for teaching. Their assessment of their teaching competence to the very high level showed their confidence to meet the challenges of the teaching profession. The teaching competence of the MAPEH and TLE majors in the BSEd program which retained the high level even after the second semester student teaching is a valuable input in the analysis of the effectiveness of the activities they were exposed to during their pre-service education.

Level of Teaching Competence as Assessed by the STs

Generally, as assessed by the STs (Table 3), the PSTs obtained a high level of teaching competence (M= 91.35. High levels of teaching competence were also earned during the first and second semesters of training (Ms= 90.90 and 91.81, respectively).

Table 2
Self-Assessed Teaching Competence of PSTs

Variable Groupings	First Semester			Second Semester			Overall		
	M	SD	Desc	M	SD	Desc	M	SD	Desc
Overall	4.26	0.45	VH	4.37	0.45	VH	4.32	0.36	VH
Program									
BSEd	4.08	0.48	H	4.30	0.40	VH	4.19	0.39	H
BEEd	4.41	0.37	VH	4.43	0.49	VH	4.42	0.31	VH
Specializations									
Math	4.20	0.36	H	4.38	0.39	VH	4.29	0.32	VH
English	4.09	0.47	H	4.39	0.27	VH	4.24	0.33	VH
TLE	4.14	0.42	H	4.18	0.42	H	4.16	0.36	H
MAPEH	3.80	0.59	H	4.15	0.51	H	3.98	0.53	H
Phy Sci	4.17	0.47	H	4.40	0.41	VH	4.29	0.36	VH
SpEd	4.29	0.31	VH	4.44	0.34	VH	4.37	0.31	VH
Gen Ed	4.45	0.36	VH	4.43	0.62	VH	4.44	0.36	VH
HELE	4.44	0.39	VH	4.44	0.45	VH	4.44	0.28	VH
ECE	4.41	0.40	VH	4.42	0.32	VH	4.41	0.25	VH

Variable Groupings	First Semester			Second Semester			Overall		
	M	SD	Desc	M	SD	Desc	M	SD	Desc
Overall	90.90	2.85	H	91.81	2.44	H	91.35	2.65	H
Program									
BSEd	89.87	3.53	H	90.97	3.09	H	90.42	3.10	H
BEEd	91.77	1.70	H	92.51	1.40	H	92.13	1.30	H
Specializations									
Math	92.00	3.49	H	92.27	1.79	H	92.14	2.22	H
English	91.38	1.99	H	92.10	1.51	H	91.74	1.62	H
TLE	90.50	1.86	H	91.56	2.73	H	91.03	1.92	H
MAPEH	84.62	4.15	A	87.31	4.68	A	85.96	4.22	A
Phy Sci	90.00	1.46	H	90.93	1.71	H	90.47	1.37	H
SpEd	89.47	1.73	H	91.75	1.65	H	90.66	1.32	H
Gen Ed	91.89	1.18	H	92.32	1.23	H	92.11	0.97	H
HELE	92.71	1.27	H	93.05	1.36	H	92.88	1.18	H
ECE	92.33	1.37	H	92.94	1.21	H	92.64	0.94	H

Further, whether grouped as to programs or by semesters, high level of teaching competence was exhibited by the PSTs with mean scores ranging from 89.47 to 93.05.

When grouped as to specializations, all groups of PSTs obtained a high level of teaching competence during both semesters, with mean scores ranging from 89.47 to 93.05. The MAPEH group, whether overall performance ($M = 85.96$) or by semester ($Ms = 84.62, 87.31$), registered an average level of teaching competence. The nature of the course, which is characterized by physical dexterity, may have come into the way of student teaching activities of this group of PSTs.

Level of Performance in the LET

Generally, as shown in Table 4, the graduates obtained an average level of performance in the LET ($M = 76.17$). This overall level is attributed to the average levels of performance they obtained in the three curricular components of the LET, namely, general education ($M = 76.40$), professional education ($M = 73.63$), and major courses ($M = 77.02$).

Further, when grouped as to program, both the BEEd and BSEd graduates registered an average level of performance with mean scores ranging from 76.07 and to 76.29, respectively.

When grouped as to major fields, an average level of LET performance was obtained by all specializations with mean scores ranging from 73.13 to 79.45. The English group exhibited high level of performance in professional education courses ($M=80.05$), and the Mathematics majors obtained high level of performance in the major courses ($M = 82.00$).

The data further show that the collective performance of the sampled groups like TLE ($M=73.13$), MAPEH ($M=74.37$), and General Education ($M=74.95$) did not meet the LET cut off passing mark of 75.00. This finding points to the weakest link in the board performance of the graduates.

Difference in the Self-Assessed Teaching Competence of the PSTs

When the PSTs were categorized as to programs, significant difference was shown between their student teaching competence levels ($t = -.4319$, $p < .01$), with the BEEd group exhibiting better teaching competence (Table 5).

This can be taken to show that the prospective elementary teachers perceived themselves to be better student teaching performers. The significant difference in the levels of teaching competence of the

Variable Groupings	M	Student Teaching Competence			
		t-value	df	p-value	Findings
Programs					
BSED	4.19	-4.319**	169	0.000	Significant
BEED	4.42				
Student Teaching Periods					
First Semester	4.26	-2.698**	170	0.008	Significant
Second Semester	4.37				

**p < .01

PSTs showed that the program where they were enrolled and the student teaching phase are factors in their teaching competence. When their competence was compared as to training periods, significant difference was noted and it was during the second semester where they registered better performance ($t = -.2698$, $p < .01$). It can be deduced that the realities of the student teaching program, where the PSTs were assigned to another venue or school and were exposed to another new learning environment, another supervising teacher, another set of learners, new subjects to be taught, and a host of many other factors caused the possibility of obtaining lower or higher level of teaching competence during the second semester. Further analysis of data.

Variable Groupings	Performance in Licensure Examination for Teachers											
	General Ed			Professional Ed			Major			Overall		
	M	SD	Desc	M	SD	Desc	M	SD	Desc	M	SD	Desc
Overall	76.40	5.31	A	73.63	6.27	A	77.02	5.75	A	76.17	5.07	A
Program												
BSED	75.51	6.07	A	75.95	5.31	A	77.02	5.75	A	76.29	4.60	A
BEED	77.15	4.47	A	75.37	7.00	A				76.07	5.45	A
Major												
Math	76.27	4.52	A	74.27	5.75	A	82.00	7.78	H	76.77	4.89	A
English	79.14	4.49	A	80.05	3.88	H	79.00	2.28	A	79.45	2.70	A
TLE	71.67	6.98	A	73.50	6.37	A	73.50	6.69	A	73.13	5.75	A
MAPEH	72.15	5.10	A	73.54	3.57	A	76.31	4.73	A	74.37	3.22	A
Phy Sci	77.40	4.95	A	76.47	2.95	A	75.47	3.66	A	76.25	2.69	A
SpEd	77.56	4.00	A	78.38	3.22	A				78.05	3.13	A
Gen Ed	76.58	4.15	A	73.89	6.59	A				74.95	5.15	A
HELE	79.67	3.51	A	75.43	10.30	A				77.12	7.35	A
ECE	75.06	5.35	A	75.72	4.78	A				75.46	4.73	A

Further analysis of data (Table 6) showed that there was significant difference in the levels of teaching competence of the PSTs as assessed by them when they were grouped as to specializations (F = 3.371, p < .01). Using the post hoc analysis indicated that significant differences were noted between MAPEH and General Education Majors, in favor of the later, English and MAPEH, in favor of English group, and TLE and MAPEH, with TLE having better teaching competence.

Difference in the Assessment of the STs of the Teach-

Table 6
Difference in the Self-Assessed Teaching Competence of PSTs When Grouped According to Specializations

	Sum of Squares	df	Mean Square	F	p-value	Finding
Between Groups	3.215	8	.402	3.371**	.001	Significant
Within Groups	19.313	162	.119			
Total	22.528	170				

**p < .01

Table 7
Post Hoc Results on the Difference of Self-Assessed Teaching Competence as to Specializations

Specialization	Mean Differences	Std. Error	p-value	Findings
MAPEH & Gen Ed	-6.6674**	.11094	.001	Significant
English & MAPEH	-4.95908**	.12185	.007	Significant
TLE & MAPEH	-43774**	.12567	.008	Significant

**p < .01

ing Competence of PSTs

This study (as indicated in Table 8) established the fact that the BSEd and BEEd PSTs differed significantly in their teaching competence acquired during OYST as assessed by the STs (t = -.4554, p <.01), with the BEEd group having better teaching competence. The finding indicated that, while the PSTs were subjected to common student teaching evaluation instrument used by the STs, the difference in education levels, the nature of teaching and learners, and a host of other circumstances must have contributed to the development of their teaching competence in student teaching.

When their teaching competence was com-

Table 8
Difference in ST-Assessed Teaching Competence of PSTs

Variable Groupings	M	Student Teaching Competence			
		t-value	df	p-value	Findings
Programs					
BSED	90.42	-4.554**	169	0.000	Significant
BEED	92.13				
Student Teaching Periods					
First Semester	90.90	-5.843**	170	0.006	Significant
Second Semester	91.81				

**p< .01

pared according to the training periods, significant difference was noted (t = .-5.843, p < .01) and it was during the second semester training where they performed better. This finding also indicated that the additional one semester of student teaching afforded the PSTs with opportunity to all the more improve their instructional delivery practices and enhance the development of their teaching competence.

Further analysis of data (Table 9) showed that there was significant difference in the levels of teaching competence of the PSTs as assessed by the STs when the PSTs were grouped as to specializations (F = 20.256, p < .01).

Using the post hoc analysis employing Tukey Test to determine where the significant differences

Table 9
Difference in the Teaching Competence of PSTs in OYST According to Specializations as Assessed by STs

	Sum of Squares	df	Mean Square	F	p-value	Finding
Between Groups	509.496	8	63.687	20.256**	.000	Significant
Within Groups	509.349	162	3.144			
Total	1018.845	170				

**p < .01

lie indicated that, as to the BSEd groups, significant differences were noted between Mathematics and MAPEH, in favor of the Mathematics group; English and MAPEH, in favor of the English group; TLE and MAPEH, in favor of the TLE group; and Physical Science and MAPEH, in favor of the Physical Science majors. With regards BEEd groups, significant differences in the student teaching competence were noted between SPED and HELE, with the HELE group having better competence; and SPED and ECE majors, with ECE majors having better teaching competence.

Table 10
Post Hoc Results on the Difference of Teaching Competence as to Specializations

Specialization	Mean Differences	Std. Error	p-value	Findings
Mathematics & MAPEH	-6.17483**	.72642	.000	Significant
English & MAPEH	-5.77656**	.62576	.000	Significant
TLE & MAPEH	-5.06624**	.64539	.000	Significant
Physical Science & MAPEH	-4.50513**	.67191	.000	Significant
SPED & HELE	-2.22470**	.58841	.007	Significant
SPED & ECE	-1.98264*	.60925	.036	Significant

**p < .01
* p < .05

Difference in LET Performance

When the BEEd and BSEd graduates were compared in terms of their performance in the LET, no significant difference was noted (t = 0.284, p > .05) and this indicated that both groups performed more or less at the same level in the board examination.

Table 11
Difference in the LET Performance as to Programs

Variable Groupings	Performance in the Licensure Examination				
	M	t-value	df	p-value	Finding
Programs					
BSED	76.29	0.284	169	0.777	Not Significant
BEED	76.07				

Analysis of data also showed that there was significant difference in the levels performance of the PSTs in the LET when they were grouped as to specializations (F=3.249, p< .05). The post hoc analysis using Tukey Test which was used to determine where the significant differences lie indicated that, as to the BSEd groups, significant difference was noted between English and TLE majors, with English majors having better performance. The English and General Education majors differed significantly in their board performance, in favor of the English majors.

Relationship Between Teaching Competence and LET

Table 12
Difference in the LET performance as to Specializations

	Sum of Squares	df	Mean Square	F	p-value	Finding
Between Groups	603.425	8	75.428	3.249*	.002	Significant
Within Groups	3761.46000	162	23.219			
Total	4364.885	170				

* p < .05

Table 13
Post Hoc Results on the Difference in LET Performance as to Specializations

Specializations	Mean Differences	Std. Error	p-value	Finding
English and TLE	6.31429**	1.54777	.002	Significant
English & Gen Ed	4.50025*	1.31022	.021	Significant

**p < .01
* p < .05

Performance A positive and significant relationship (Table 14) was noted between the teaching competence developed by the PSTs in OYST as assessed by the STs and their performance in the LET (r = .153, p< .05). The finding indicated that there is a causal evidence to show the influence of OYST on the acquisition and further development of the teaching competence and on achieving license to teach as professional teachers.

FINDINGS

Table 14
Relationship Between the Teaching Competence of the PSTs and LET Performance

	Performance in the LET		
	r	r Probability	Finding
Student Teaching Competence	0.153*	0.046	Significant

* p < .05

The following are the findings of the study:

1. Generally, the PSTs assessed their teaching competence in one year student teaching to be at a very high level. Very high level of teaching competence was how they rated themselves during the first and second semesters of training. The BEEd group rated themselves to have a very high level of teaching competence both during the first and second semesters. Their BSEd counterpart rated their teaching competence to a high level during the first semester. However, during the second semester, they felt their teaching competence raised to a very high level. All specializations under the BEEd program such as General Education, HELE, ECE, and SPED believed they exhibited a very high level of teaching competence both during their first and second semesters. All majors under the BSEd program obtained a high level of teaching competence during the first phase of student teaching. Except for TLE and MAPEH majors who maintained a high level of teaching competence, the English, Physical Science, and Mathematics groups raised their level of teaching competence to a very high level during the second phase of immersion to actual teaching.

2. Generally, as assessed by the STs, the PSTs obtained a high level of student teaching competence and this is one level lower than the assessment of the PSTs. This is attributed to the high level of 0.284 169 0.777 Not Significant competence registered during the first and second semesters of training. Whether

grouped as to programs or by semesters, high level of teaching competence was exhibited by the PSTs. When grouped as to specializations, all groups of PSTs obtained a high level of teaching competence during both semesters. The MAPEH group, whether overall performance or by semesters, registered an average level of teaching competence.

3. Generally, the graduates obtained an average level of performance in the LET. This overall level is attributed to the average levels of performance they obtained in the three curricular components of the LET such as general education, professional education, and major courses. When grouped as to program, the BSEd PSTs registered an average level of performance in the three components of the LET. The BEEd group also obtained an average level of LET performance in the general education and professional education courses, the only two curricular components included in the LET for elementary teachers. When grouped as to major fields, an average level of LET performance was obtained by all specializations. The English group exhibited high level of performance in professional education courses, and the Mathematics majors obtained high level of performance in the major courses. It was shown that the collective performance of the sampled groups like TLE, MAPEH, and General Education did not meet the cut off passing mark of 75% of the LET. This finding points to the weakest link in the board performance of the sampled PSTs.

4. When the PSTs were categorized as to programs, significant difference was shown between their student teaching competence levels as assessed by them, with the BEEd group exhibiting better teaching competence. When their competence was compared as to training periods, it was during the second semester where they registered better performance. There was significant difference in the levels of teaching competence of the PSTs when they were grouped as to specializations. The post hoc analysis indicated that significant differences were noted between MAPEH and General Education Majors, in favor of the later, English and MAPEH, in favor of English group, and TLE and MAPEH, with TLE having better teaching competence.

5. The BSEd and BEEd PSTs differed significantly in their teaching competence acquired during OYST as assessed by the STs. When their teaching competence was compared according to the training periods, significant difference was noted and it was during the second semester training where they performed better. There was significant difference in the levels of teaching competence of the PSTs when they were grouped as to specializations. The post hoc analysis indicated that, as to the BSEd groups, significant differences were noted between Mathematics and MAPEH, in favor of the Mathematics group; English and MAPEH, in favor of the English group; TLE and MAPEH, in

favor of the TLE group; and Physical Science and MAPEH, in favor of the Physical Science majors. As regards BEEd groups, significant differences in the student teaching competence were noted between SPED and HELE, with the HELE group having better competence; and SPED and ECE majors, with ECE majors having better teaching competence.

6. No significant difference was noted between the LET performance levels of the BEEd and BSEd graduates. There was significant difference in the levels performance of the PSTs in the LET when they were grouped as to specializations. As to the BSEd groups, significant difference was noted between English and TLE majors, with English majors having better performance. The BSEd -English and BEEd- General Education majors differed significantly in their board performance, in favor of the English majors.

7. A positive and significant relationship was noted between the teaching competence developed by the PSTs in OYST and their performance in the LET.

CONCLUSIONS

The following are the conclusions made based on findings:

1. The PSTs viewed themselves as possessing teaching efficacy being highly competent and very high performers in one year student teaching.

2. The STs assessed the teaching competence of the PSTs one level lower than their self-assessment and they were rated as high performers in one year student teaching.

3. The immersion of the pre-service teachers to another semester of student teaching all the more improved their teaching competence.

4. Programs enrolled, specializations, and student teaching periods are factors in the development of student teaching competence.

5. As education graduates, generally, they were average performers in the LET, but particularly, the TLE, MAPEH, and General Education as groups fall short of the passing cut-off score of the examination.

6. Whether they are BEEd or BSEd PSTs did not affect their performance in the LET but their specializations are factor in their LET performance.

7. Student teaching competence developed within one year student teaching influenced the performance of graduates in the board examination.

RECOMMENDATIONS

This study offered the following recommendations:

1. Opportunities to maximize the development of teaching efficacy or competence among the pre-service teachers can be provided through continuous review and enrichment of the teacher education curriculum and of the delivery system of instruction, specifically that of the student teaching program.

2. Screening mechanism for entrants to the various TEPs can be reviewed to establish admission standards vis-à-vis immersion to responsive instructional activities across programs and specializations to be comparable with others in their level of teaching competence and board performance, considering that some specializations do not fare well in the LET.

3. The teaching competence areas or practices where the PSTs were found to be needing more improvement can be looked into as pivotal point for the implementation of relevant enhancement program to all the more increase their competence level and passing performance in the LET.

4. Immersion of PSTs to another semester of student teaching is one best practice in teacher training that is worth-implementing to enhance teaching efficacy and board performance much more so with the unfolding curriculum-decongestion in tertiary education with the implementation of K to 12 program. Lengthening of student teaching to two semesters may be considered in the development of the teacher education curriculum.

5. The performance of the graduates in the board examination whether by programs, specializations, and curricular components deserves the needed look in any attempt for continuous improvement in the implementation of the teacher education curriculum to be responsive to the demands of licensure examination.

6. Similar and relevant studies may be conducted to cover other pre-service teachers of external campuses and of other TEIs, whenever applicable, that focus on other variables which interplay with the contribution of OYST to the performance of the graduates in the licensure examinations or in professional teaching.

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Innovated Framing Square Device

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ABSTRACT

Today, construction of small, medium and large residential and commercial buildings with mixed materials is applied. Innovated Framing Square Device perform as a T-Square to draw horizontal lines, adjust angles from zero degree to one hundred eighty degrees, adjust the levelness of the elevations, check the verticalness of the structures and locates the NSWE directions of the compass. This innovation was a product of the researcher's observation to the construction works and drawing activities to pave a way for opportunities in the skills of construction disciplines that are highly in demand in the global market. The significant Mean difference between the perceptions of the respondents groups towards the Acceptability of the fabricated Innovated Framing Square Device. The instructors had a weighted mean of 4.66 with the Standard deviation of 0.15 while the students had a weighted Mean of 4.58 with the standard deviation of 0.17. The computed t-value of 1.52 lesser that the critical value of 2.02 therefore Do not Reject Ho, So, There is no significant difference between the respondent Group on the Acceptability of the Innovated Framing Square Device.

Keywords: Framing Square, Mechanical Bolts, Slider Bushing Lock

Introduction

The technology in laying out a building is very crucial by implementing the correct angles, elevations and verticalness of the structures. The equipment we're going to use is theodolite surveying equipment. This equipment is very expensive to us to procure. The Innovated Framing Square Device for Instruction at Cebu Technological University-Main Campus, Cebu City will be fabricated for the benefits of the students, faculty, craftsman and the entrepreneurs.

Quasi-Experimental method particularly survey research was employed on this study. Questionnaires were given to 10 professors/instructors and 36 students for evaluation. Gathered data were treated using total weighted points, weighted mean, and t-test. It should be found that the Innovated Framing Square Device was highly acceptable in terms of design, ergonomics and construction for students, faculty, industry workers and entrepreneurs.

This study was conducted at Cebu Technological University Pinamungajan Extension Campus, Cebu, Philippines in order to fabricate Innovated Framing Square Device and determine its acceptability and effectiveness of the machine tool during academic year 2014-2015. The Innovated Framing Square Device was evaluated on the acceptability of its Design, Ergonomics and Construction.

Objective

To determine the acceptability and effectiveness of Innovated Framing Square Device, most features have capacity to retract, extend the three metal stakes and rotate the T-head of the framing square for the selection of specified angles. The mechanical bolts, plain washer and wing nuts will be used to lock the head and stake bushings.

Review of Related Literature

The device is designed to be used as a framing-square for fast and accurate measurement of the opposite ends of the beams in construction, the frames of roofs, lengths and its required angles for the opposite ends thereof. The present invention consists in the combination and arrangement of parts, it is being understood that changes in the form, proportion, size, and minor details may be made depending on how it is being used without leaving or changing any of the advantages of the invention.

Henry B. Sargent, the primary object of his invention which is the framing square as he related it to carpenter's framing squares,

to carpenter's framing squares, is to provide a square having an arrangement of rafter tables where by a maximum amount of useful information to the craftsman may be placed on the square with the use of a minimum number of figures.

In response to this situation, the proponent conceptualize Innovated Framing Square Device for Instructional at Cebu Technological University-Main Campus, Cebu City that can produce a healthy environment to do the job in context of comfort, easy to mount and unmounts, function output, economical matter and safety of the users, ease of handling flexibility and maximization, the functions of device will be partly answered. This could be used as project for the students providing the basic skills in machine operations.

Methodology

This study used quasi-experimental method of research to gather facts relevant in achieving the discussion details in planning, designing, and constructing the Innovated Framing Square Device. Normative survey will be its mode of acquiring data that uses the questionnaire as the main instrument.

The process involved project making and operational module that include hand tools, power tools, supplies and materials, safety gadgets, and cleaning paraphernalia. After completion of the Innovated Framing Square Device, the students and instructors will validate the output of the study.

Table 1 presents the result and the Significant Mean difference between the perceptions of the respondents groups towards the Acceptability of the fabricated

Figure 1

Map of Cebu Province, CTU-Main Campus and the research venue

Conventional Framing Square

Conventional T- Square
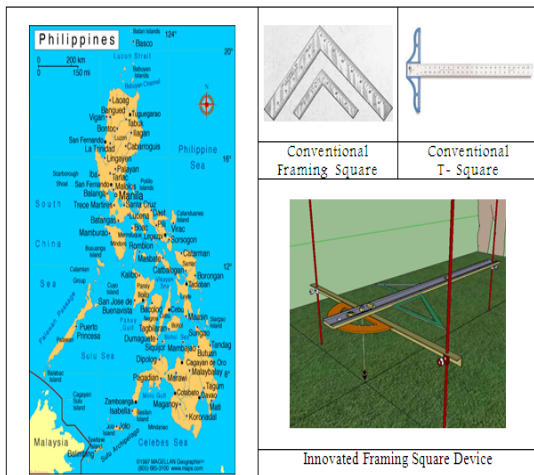
Innovated Framing Square Device

Table 1.

TEST OF SIGNIFICANT MEAN DIFFERENCE BETWEEN THE PERCEPTIONS OF THE RESPONDENT GROUPS AND STUDENTS ON THE ACCEPTABILITY OF THE FABRICATED INNOVATED FRAMING SQUARE DEVICE

Respondents	Innovated Framing Square Device		Computed t-value	Critical t-value $\alpha=0.05$ two tailed test	Decision
	X_1	SD_1			
Instructors (N=10)	4.66	0.15	1.52	2.02	Do not Reject Ho
Students (N=36)	4.58	0.17			

Innovated Framing Square Device. The instructors had a weighted mean of 4.66 with the Standard deviation of 0.15 while the students had a weighted Mean of 4.58 with the standard deviation of 0.17. The computed t-value of 1.52 lesser that the critical value of 2.02 therefore Do not Reject Ho, So, There is no significant difference between the respondent Group on the Acceptability of the Innovated Framing Square Device.

This means that Both Instructors/Professors and students have The same perceptions on the Fabricated T-Square Device which is " HIGHLY ACCEPTABLE".

Table 2 prints the consolidated data on the Effectiveness of the fabricated framing Square Device for Instruction in terms of Design, Ergonomics and Construction. The professors/instructors rated the three categories as 4.72, 4.63 and 4.64 with a standard devi-

TABLE 2

EFFECTIVENESS OF THE OF THE FABRICATED INNOVATED FRAMING SQUARE DEVICE IN TERMS OF DESIGN, ERGONOMICS AND CONSTRUCTION

Framing Square Exercises	Criteria	INSTRUCTORS (N1 = 10)		STUDENTS (N2 = 36)	
		WEIGHTED MEAN	STANDARD DEVIATION	WEIGHTED MEAN	STANDARD DEVIATION
Staking out Leveling of Elevations Checking of Vertical Structures	Design	4.72	0.13	4.49	0.19
	Ergonomics	4.63	0.10	4.64	0.15
	Construction	4.64	0.26	4.62	0.15
Average weighted Mean		4.66		4.53	
Standard Deviation			0.16		0.16
Verbal Description		HIGHLY EFFECTIVE		HIGHLY EFFECTIVE	

ation of 0.13, 0.10 and 0.26 respectively while the students gave their responses to the four categories as 4.49, 4.64, 4.62 and 4.64 with a standard deviation of 0.19, 0.15 and 0.15 respectively. The over-all on the Effectiveness of the Innovated Framing Square Device's Design by both by professors/instructors and students indicate that it is *Highly Effective* as manifested in the average weighted mean of 4.66 and 4.53

with a standard deviation of 0.16 and 0.16 respectively. The summary of the effectiveness of the constructed framing square device proves that the design of the device met the required standards for planning and designing. It can be the basis for the construction of the Innovated framing square device for Instruction. It is proven that the Innovated framing square device for Instruction follows the standards in design, ergonomics and construction.

CONCLUSION

Based from the findings of this study, it can be concluded that the Innovated Framing Square Device has met the standard in terms of design, ergonomics and functions. It has the capacity to adjust the angle of the T-square Head, adjust the three (3) legs for the levelness of the surface, re-tract the two (2) drawing triangles for vertical lines and establishing the north direction of the compass for orienting a building.

RECOMMENDATION

It is highly recommended that the instructional guide be adopted.

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Recycled Bearing Concrete Hollow Blocks
for Wall Panel

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ABSTRACT

Recycled Bearing Concrete Hollow Blocks for Wall Panel is part of innovation which meets the needs particularly the students of Cebu Technological University– Pinamungajan Extension Campus, Pinamungajan Cebu Philippines in introducing new features and design Strength. From the result on the acceptability on the variables of the price per piece of the traditional Concrete Hollow Block is Higher than the proposed Recycled Bearing Concrete Hollow Block for Wall Panel and the result on the acceptability on the variables of the compression strength of the proposed Recycled Bearing Concrete Hollow Block for Wall Panel is Higher than the traditional Concrete Hollow Block.

Keywords: Compressive Strength, Plastic Bottle, Cement, Sand, water and Mesh wire

Introduction

Recently we are very much aware of the effect of the improper waste management not only in our country but throughout the world. One of the causes of flood is the garbage thrown in rivers and canals particularly plastics that clogged and make water overflow. Plastics are classified as non-biodegradable materials and it contains a chemical toxin that has miserable effect to human and environment. We cannot get rid of plastics directly because of many reasons. One of the reasons is durability that we can use it for longer times and save money. The researcher makes a study to make plastics more useful. The study aims not to totally solve our environmental problem but at least help lessen it .And most especially it will make us became aware that there are products can be made out of waste materials.

Cement on the other hand, is the main raw material used in this study. The aggregates are collected from river. The result of the universal testing machine, evaluates the strength of hollow blocks under compression test. It has been considered appropriate to use the crossing point elements to represent the confinement effect at the top and bottom of concrete hollow blocks. Laboratory tests were carried out the elastic and inelastic parameters that are compressive strength, stress-strain relationship and fracture energy were acquired from concrete samples that constitute the blocks. The laboratory test result of experimental concrete hollow blocks found higher strength than the commercialized concrete hollow blocks.

Objective

To measure the capacity and effectiveness of the Recycled Bearing Concrete Hollow Blocks for Wall Panel particularly on its compressive strength. Most acceptable material used has the capacity to bond the mortar into its mixtures.

Review of Related Literature

Most people are familiar with concrete masonry systems (CMS) since they are using it for a long time. From residential to commercial, to educational and industrial and all types of low-rise buildings mostly are made with these materials, from the tough exterior of exposed units provides a strong finish in demanding environments and this has been preferred by most architect because it is sustainable for a number of reasons according to America's Cement Manufacturer. It can contain recycled materials or made from local materials and can also be shipped short distances to a project. Masonry walls can be insulated in many ways. It is also energy efficient that provides thermal mass to help moderate temperature in buildings and lighter weight units are made with lightweight aggregate to help provide added thermal resistance.

In the Philippines, Concrete Hollow Blocks (CHB), are one of the most widely used walling materials because it is lower in cost when compared to other materials and speed of installation by semi-skilled workers. Since CHB walls are very weak against lateral loads (pushing or pulling forces from typhoon or earthquake), adding steel reinforcing bars vertically and horizontally inside the CHBs can increase their resistance.

In response to this situation, the proponent conceptualize a recycled bearing concrete hollow blocks for wall panel that can produce a healthy environment to do the job in context of recycled plastics, light weights, economical matter and compression strength. The functions of recycled bearing concrete hollow blocks for wall panel will be partly answered. This could be used as project for the students providing the basic skills in concrete and masonry for manufacturing.

Methodology

This study used Quasi-Experiment method of research to gather facts relevant in achieving the discussion details in planning, designing, and testing the recycled bearing concrete hollow blocks for wall panel. Normative survey will be its mode of acquiring data that uses the questionnaire as the main instrument.

In the research flow diagram as presented in figure 2 the input of the study involves conceptualization on planning and designing stage. It includes preparation of working drawings, materials cost, set of orthographic drawing, detailing and its assembly sequence.

The process involved project making and operational module that include hand tools, power tools, supplies and materials, safety gadgets, and cleaning paraphernalia. After completion of the recycled bearing concrete hollow blocks for wall panel, the students and instructors will validate the output of the study.

CONCLUSION
The Recycled Bearing Concrete Hollow Blocks for Wall Panel has met the standard in compression strength and the market price per block. It has the capacity to bond the mortar into its mixtures.

Figure 1
Map of Cebu Province, CTU-Main Campus and the research venue
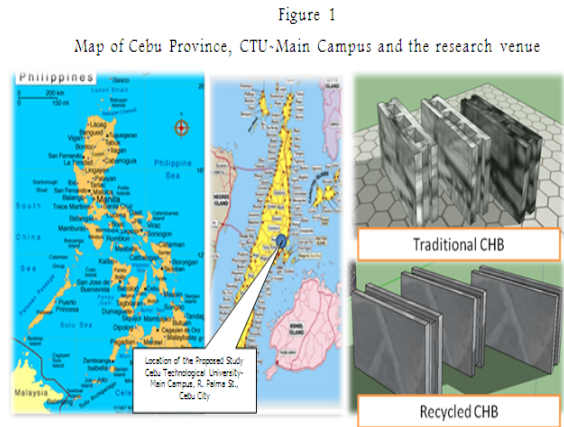
Table 1

Acceptability of the Recycled Bearing Concrete Hollow Blocks for Wall Panel in terms of Cost.

Sample Blocks	COMPARISON						
	Volume M3	Cement Kilos	Sand M3	Mesh Wire	Recycled Bottle	Labour Cost	Price Per piece
Traditional Load Bearing CHB	0.00725	P3.48	P3.26	0.00	0.00	P0.67	P 7.41
Recycled CHB for Wall Panel	0.00425	P2.04	P1.91	P 0.45	P 0.50	P0.67	P 5.57

From the result on the acceptability on the variables of the price per piece of the traditional CHB is Higher than the proposed Recycled Bearing CHB for Wall Panel.

Table 2

Acceptability of the Recycled Bearing Concrete Hollow Blocks for Wall Panel in terms of Compressive Strength.

From the result on the acceptability on the variables of the compression strength of the proposed Recycled Bearing CHB for Wall Panel is Higher than the traditional CHB.
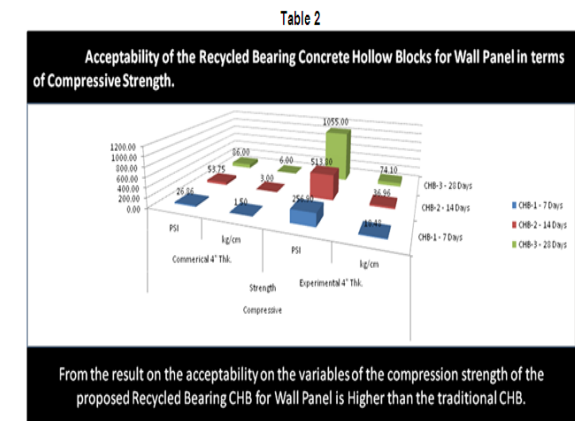
RECOMMENDATION

Is highly recommended for manufacturing and to be used in building construction.

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September   2014

Yu Ze Tian, Experimental Study on Producing Concrete Hollow Block with Mining Slag
May 2011

INNOVATED 2 n 1 DRAFTING TABLE

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ABSTRACT

This paper presents the development of the Innovated 2-n-1 Drafting Table for Instruction. Questionnaires were distributed to 10 professors/instructors and 36 students for evaluation. Gathered data were treated using total weighted points, weighted mean, and t-test. The Innovated 2-n-1 Drafting Table is highly acceptable by both instructors and students for working drawing, as well as, in terms of budget and estimates and fabrication.

Keywords: Innovated 2-n-1 Drafting Table

INTRODUCTION

Rationale of the Study

Competency-based education has become a hot topic in higher education circles these days. It is becoming increasingly popular as the country searches for ways to improve college affordability and more accurately measure student learning. There are almost as many institutions claiming to have competency-based education as there are definitions, so it seems worthwhile to define what competency-based learning is and how it can benefit higher education in the country. Certainly, in vocational and technical schools, students are trained in different technology, for them to be equipped for their future life as they are called technically skilled individuals. But even how good the program and curriculum, they are still depending on the adequacy of tools, equipment, and facilities needed.

The Innovated 2 n 1 Drafting Table was designed to meet not only for the students use but also in the industry and entrepreneurs. This Innovated 2 n 1 Drafting Table has multi-functions. It can be used for multi-media instructional materials with the help of its extended arm rest platforms, 360 degrees turned table, built in cabinetry, locked and unlocked sole roller and knock- down-fittings (KDF) system.

This study was also being useful for technical-vocational trainer and assessor by conducting training and assessment in Computer Aided Drafting and Designing (CADD) competency.

The Innovated 2 n 1 Drafting Table was proposed for the convenience of every individual, to make every instruction easy to comprehend and appreciative since the materials used are well mounted and accessible to the users.

This study was conducted to construct the Innovated 2 n 1 Drafting Table for Instruction that can produce excellent quality, drafting disciplines with ease and a user comfort, It was the researcher's desire to innovate, this Innovated 2 n 1 Drafting Table for instruction.

This innovation was a product of the researcher's observation to the manual drawing works to pave a way for opportunities in the skills of drafting disciplines that are highly in demand in the global market.

STATEMENT OF THE PROBLEM

The main purpose of the study is to develop an Innovated 2 n 1 Drafting Table for Instruction at Cebu Technological University-Main Campus, Cebu City during the academic year 2014-2015 as a basis for the instructional package.

Specifically, it seeks answers to the following:

1. What are the technical requirements for the development of the Innovated 2 n 1 Drafting Table as to:

    1.1 Working Drawing,

1.2 Bill of materials, Estimates, and

1.3 Fabrication and Assembling?

2. Using the innovated 2 n 1 drafting table what are the:

2.1 Perception of instructors and students to the extent of the acceptability of the technical requirements, and significant difference and

2.2 The level of significance of the students drafting competency?

OBJECTIVES:

This manual will guide and teach the students to:

1. Put up and assemble 2 n 1 drafting table.
2. Install the necessary parts.
3. Determine approximately the bill of materials needed in for construction.
4. Plan innovated 2 n 1 drafting table by his/her own way of mind's eye.
5. Build a manual by his/her plan.

Based on the findings, what instructional package can be developed?

REVIEW OF LITERATURE

The **adjustable transparent drafting table with rechargeable lamp**. Architects & engineers use this gadget to view plans of the building. The entire plan can be viewed on one occasion; giving them the possibility to uncover if can be any issues or conflict along with the overall layout. Because the large space, each time changes to plan. (TY Hammell, 2010).

The NOTRDIC Musculoskeletal Questionnaire (NMQ) was used to ascertain the current status of the workstation which shows severe pains in the other anatomical areas. The analysis of the NOTRDIC questionnaire together with the anthropometric data was used in designing for the dimensions of the chair and **drafting table** for the workstation to alleviate the intensity of musculoskeletal trouble in the affected parts of the body other anatomical areas. A prototype of the recommended chair with the following dimensions: height 85cm, depth 56.0 cm, width, weight 580 N, height back rest 29 cm and **drafting table**: length 93.6 cm, height 79.2 cm were fabricated using locally source materials considering the engineering properties of the materials and economic value in saving cost.(U.Y. Aliyu, A. TOKAN, B.T. Abur and M.A. Bawa)

METHODOLOGY

This study is a quasi-experimental research

using recycled materials and supplies through a project making a construct Innovated 2 n 1 Drafting Table for Instruction as the basis for drafting technology shop and enhances the school's capacity to mass produce designing projects.

In the research flow diagram as presented in figure 4, the input of the study involves conceptualization on planning and designing stage. It includes preparation of working drawings, materials cost, set of orthographic drawing, detailing, and its assembly sequence.

The process involved project making and the operational module that include hand tools, power tools, supplies and materials, safety gadgets, and cleaning paraphernalia. After completion of the Innovated 2 n 1 Drafting Table for Instruction, the students and instructors will validate the output of the study.
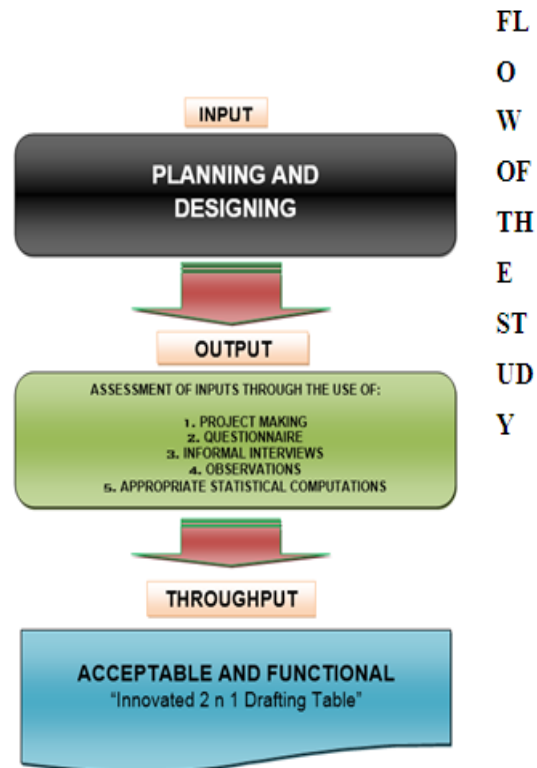

Figure 4
Flow of the Study

Test of significant mean difference between the perceptions of the respondent groups and students on the acceptability of the fabricated innovated 2 n 1 drafting table

In testing for the significant difference, t – test was employed. Averaged weighted mean and standard deviation were computed and recorded.

Respondents	Multipurpose Fabricated T-Square Device		Computed t-value	Critical t-value $\alpha=0.05$ two-tailed test	Decision
	X_1	SD_1			
Instructors (N=10)	4.66	0.15	1.52	2.02	Do not Reject Ho
Students (N=36)	4.58	0.17			

Presents the result an Innovated 2 n 1 Drafting Table the Significant Mean difference between the perceptions of the respondents groups towards the Acceptability of the fabricated Innovated 2 n 1 Drafting Table. The instructors had a weighted mean of 4.66 with the Standard deviation of 0.15 while the students had a weighted Mean of 4.58 with the standard deviation of 0.17. The computed t-value of 1.52 lesser that the critical value of 2.02, therefore, Do not Reject Ho, So, There is no significant difference between the respondent Group on the Acceptability of the Innovated 2 n 1 Drafting Table. This means that Both Instructors/Professors and students have The same perceptions on the Fabricated 2 n 1 drafting table which is " HIGHLY ACCEPTABLE".
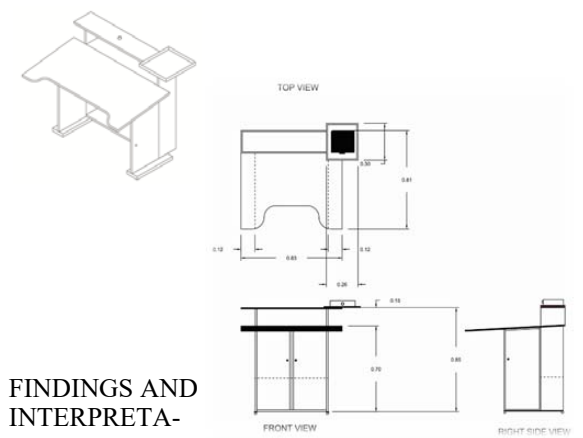
FINDINGS AND INTERPRETA-
TION

The extent of the acceptability of the Innovated 2 n 1 Drafting Table were as follows:

Working Drawing. The Acceptability of the Innovated 2 n 1 Drafting Table in terms of Working Drawing was summed up and described as *Highly Acceptable* by both instructors and students as manifested in the average weighted mean of 4.64 and 4.62 with a standard deviation of 0.21 and 0.15.

Isometric

Acceptability of the constructed Innovated 2 n 1 Drafting Table in terms of Working Drawing

Working Drawing	INSTRUCTORS (N1 = 10)		STUDENTS (N2 = 36)	
	X	VD	X	VD
Preparation of drawing instrument	4.80	HA	4.44	HA
Selection of materials in Basic drafting	4.80	HA	4.33	HA
Preparation of CAD drafting and sectioning	4.60	HA	4.33	HA
Detailing of Orthographic drawing and Isometric	4.90	HA	4.83	HA
Presentation of 3D drawing	4.60	HA	4.56	HA
Presentation of exploded drawing	4.60	HA	4.44	HA
AVERAGE WEIGHTED MEAN	4.72		4.49	
STANDARD DEVIATION	0.13		0.19	
INTERPRETATION	HIGHLY ACCEPTABLE		HIGHLY ACCEPTABLE	

LEGEND:

HA is highly acceptable

X is the weighted mean

VD Verbal Description

For *"Preparation of drawing instrument"* Selection of materials in Basic drafting, Preparation of CAD drafting and sectioning, Detailing of Orthographic drawing and Isometric, Presentation of 3D drawing, Presentation of exploded drawing, instructors and the students described as ***Highly Acceptable*** with the weighted mean of 4.80 and 4.44 respectively.

Bill of materials and Estimates. The Acceptability of the fabricated Innovated 2 n 1 Drafting Table in terms of Bill of materials and Estimates. Acceptability of the constructed Innovated 2 n 1 Drafting Table in terms of Bill of Materials and Estimates is statistically ***Highly Acceptable*** as proven by the evaluation of the instructors and students with the average weighted mean of -4.63 and 4.64, and with the standard deviation of 0.10 and 0.15.

The *Innovated 2 n 1 Drafting Table* design as to the bill of materials and estimates was proven good, safe, durable, and time-saving.

Bill of Materials

Qty.	Unit	Description	Disposition	Unit Price	Total Price
3	Shts.	19mm x 4'x8' Marine Plywood	Surface, panel boards and multi-media cabinet	Php1,200.00	Php3,600.00
2	Pcs.	S4s 2"x4"x6' Good Lumber	Sole Plates	Php450.00	Php1,350.00
4	Pcs.	Roller caster with lock Synthetic Engineering Plastic	Sole Plate Rollers	Php150.00	Php450.00
1	seat	0.30-meter diameter Circular Rail guide	Projector rail guide	Php150.00	Php150.00
30	Pcs.	1-1/2" KDF Screw	Panel Screw	Php15.00	Php450.00
2	seats	Metal Retractable Folding Roller Guide	Drawing Sliding Guide	Php155.00	Php300.00
1	Roll	19mm Melamine Tapes	Edging Tape	Php350.00	Php350.00
1	Liter	White Glue	Adhesive	Php150.00	Php150.00
4	Pcs.	8mm Dia. x 2" Mechanical Bolts and Nuts	Pivot Shafting	Php7.00	Php28.00
1	Gal	Automotive Paint	Surface Painting	Php1,200.00	Php1,200.00
10	pcs	Sand Paper # 80, 120, 400	Sanding	Php12.00	Php120.00
1	Liter	Automotive Putty	Spot Putty	Php270.00	Php270.00
1	Liter	Automotive Clear Gloss Lacquer	Top Surface Painting	Php1,500.00	Php1,500.00
			Total		Php9,918.00
			50% Labor		Php4,959.00
		Overhead 10% (supplies and materials)			Php991.80
			Grand Total		Php15,868.80

Acceptability of the Fabricated Innovated 2 n 1 Drafting Table in terms of Bill of Materials and Estimates

Shows the Acceptability of the fabricated Innovated 2 n 1 Drafting Table in terms of Bill of materials and Estimates. It gives four indicators such

Criteria	INSTRUCTORS (N1 = 10)		STUDENTS (N2 = 36)	
	X	VD	X	VD
Availability of Materials	4.6	HA	4.5	HA
Utilization of Tools and Equipment	4.7	HA	4.56	HA
Specifications of materials, Tools and Equipment	4.5	HA	4.83	HA
Labor costs, Equipment Rentals, and mobilization Costs,	4.7	HA	4.67	HA
AVERAGE WEIGHTED MEAN	4.63		4.64	
STANDARD DEVIATION	0.10		0.15	
INTERPRETATION	**HIGHLY ACCEPTABLE**		**HIGHLY ACCEPTABLE**	

LEGEND:

HA is highly acceptable

X is the weighted mean

VD Verbal Description

as *Availability of Materials, Utilization of Tools and Equipment, Specifications of materials, Tools, and Equipment, and Labor costs, Equipment Rentals, and mobilization Costs.*

Fabrication. The Acceptability of the Innovated 2 n 1 Drafting Table in terms of functions. The Acceptability of the constructed Innovated 2 n 1 Drafting Table in terms of Functions is summed up and described as *Highly Acceptable* by both instructors and students as manifested in the average weighted mean of 4.64 and 4.62 with a standard deviation of 0.21 and 0.15.

Acceptability of the constructed Innovated 2 n 1 Drafting Table in terms of its Fabrication

Fabrication	INSTRUCTORS (N1 = 10)		STUDENTS (N2 = 36)	
	X	VD	X	VD
Selection of Materials	4.80	HA	4.33	HA
Selection of tools and equipment	4.60	HA	4.78	HA
Proper use of fastener	4.40	HA	4.61	HA
Adequate ventilation for computer hardware	4.70	HA	4.67	HA
Proper attachment of retractable sliders.	4.30	HA	4.67	HA
Proper angle of drawing platform	4.80	HA	4.67	HA
Quality of the finished fabricated Innovated 2 n 1 Drafting Table.	4.80	HA	4.33	HA
Proper positioning of 360 turntable rail guides	4.60	HA	4.78	HA
Proper use of catches	4.70	HA	4.67	HA
Proper use of Armrest	4.70	HA	4.67	HA
AVERAGE WEIGHTED MEAN	4.64		4.62	
STANDARD DEVIATION	0.21		0.15	
INTERPRETATION	HIGHLY ACCEPTABLE		HIGHLY ACCEPTABLE	

LEGEND:

HA is highly acceptable   *X* is the weighted mean   VD Verbal Description

It gives the Acceptability of the Innovated 2 n 1 Drafting Table in terms of fabrication. It shows six(6) indicators namely *Selection of Materials, Proper use of fastener, Adequate ventilation for computer hardware, Proper attachment of retractable slider, Proper angle of drawing platform, Quality of the finished fabricated Innovated 2 n 1 Drafting Table, Proper positioning of 360 turntable rail guides, Proper use of catches and Proper use of Armrest.*

Level of significance of the students drafting competencies using the constructed Innovated 2 n 1 Drafting Table

Grade	Category	Verbal Description
90-95	Outstanding (O)	When the Accuracy, capacity and quality of the performance are fully attained.
85-89	Very Satisfactory (VS)	When the Accuracy, capacity and quality of the performance are attained.
80-84	Satisfactory (S)	When the Accuracy, capacity and quality of the performance are moderately attained.
75-79	Fair (F)	When the Accuracy, capacity and quality of the performance are partially attained.
74-below	Poor (P)	When the Accuracy, capacity and quality of the performance are not attained.

Student's Performance Level in Terms of Skills Competencies

STUDENTS	COMPETENCIES						Average	Standard Deviation
	Sketching/Alphabet of Lines	Geometric Construction/ Orthographic Drawing	Perspective Drawing	Basic CAD Entity Exercises	CAD Plotting/ Printing	Checking and Testing of Innovated 2 n 1 Drafting Table		
A	90	91	94	95	90	91	92	Outstanding
B	89	91	93	96	92	91	92	Outstanding
C	95	85	91	85	90	85	89	Very Satisfactory
D	96	90	91	85	92	90	91	Outstanding
E	85	92	85	90	95	92	90	Outstanding
F	85	90	90	89	95	90	90	Outstanding
G	87	92	92	95	95	92	92	Outstanding
H	86	95	90	96	89	95	92	Outstanding
I	91	95	92	85	95	95	92	Outstanding
J	91	95	90	85	96	84	91	Outstanding
K	91	96	85	90	85	90	91	Outstanding
L	85	85	90	92	85	89	87	Very Satisfactory
M	90	85	92	90	90	95	90	Outstanding
N	92	90	89	92	92	96	92	Outstanding
O	90	92	95	95	90	85	91	Outstanding
P	92	90	96	95	92	85	92	Outstanding
Q	95	92	85	95	95	84	91	Outstanding
R	95	95	85	84	95	82	89	Very Satisfactory

Table 8 presents the result of the students' acquired level competencies which are Outstanding with rated scale of 90% - 95% and the other students had acquired Very Satisfactory with the rated scale of 85% - 89%.

CONCLUSION AND RECOMMENDATION

1. It was found out that the technical requirements for the constructed Innovated 2 n 1 Drafting Table were as follows:

The constructed Innovated 2 n 1 Drafting Table was **Highly Acceptable** in terms of working drawing both by professors/instructors and students.

The constructed Innovated 2 n 1 Drafting Table was **Highly Acceptable** in terms of Bill of Materials and Estimates both by professors/instructors and students.

The constructed Innovated 2 n 1 Drafting Table was **Highly Acceptable** in terms of Fabrication both by professors/instructors and students

2. The extent of the acceptability of the Innovated 2 n 1 Drafting Table were as follows:
*Working Drawing***.** The Acceptability of the Innovated 2 n 1 Drafting Table

in terms of Working Drawing was summed up and described as *Highly Acceptable* by both instructors and students as manifested in the average weighted mean of 4.64 and 4.62 with a standard deviation of 0.21 and 0.15.

Bill of materials and Estimates. The Acceptability of the fabricated Innovated 2 n 1 Drafting Table in terms of Bill of materials and Estimates.Acceptability of the constructed Innovated 2 n 1 Drafting Table in terms of Bill of Materials and Estimates is statistically *Highly Acceptable* as proven by the evaluation of the instructors and students with the average weighted mean of -4.63 and 4.64, and with the standard deviation of 0.10 and 0.15.

The *Innovated 2 n 1 Drafting Table* design as to the bill of materials and estimates was proven good, safe, durable, and time-saving.

Fabrication. The Acceptability of the Innovated 2 n 1 Drafting Table in terms of functions. The Acceptability of the constructed Innovated 2 n 1 Drafting Table in terms of Functions is summed up and described as *Highly Acceptable* by both instructors and students as manifested in the average weighted mean of 4.64 and 4.62 with a standard deviation of 0.21 and 0.15.

3. The Significant Difference between the Innovated 2 n 1 Drafting Table. For the instructors; The constructed Innovated 2 n 1 Drafting Table has a weighted mean of 4.79 with the standard deviation of 0.12. The computed t-value was 12.68 greater than the tabled t-value of 2.056. Therefore the null hypothesis, Ho: "There is no significant mean difference between an Innovated 2 n 1 Drafting Table was rejected. Then, the alternative hypothesis, Ha: "There is the significant mean difference between an Innovated 2 n 1 Drafting Table Tool was accepted. While for the students, Innovated 2 n 1 Drafting Table has weighted mean of 4.68 with the standard deviation of 0.09. The computed t-value is 6.15 greater than the tabled T-value of 2.056. It also calls for the rejection of the null hypothesis, Ho: "There is no significant mean difference between an Innovated 2 n 1 Drafting Table and the acceptance of the alternative hypothesis

Ho: "There is a significant mean difference between an Innovated 2 n 1 Drafting Table. Both professors/instructors and students call for the rejection of the null hypothesis; therefore, there is really a significant difference between Innovated 2 n 1 Drafting Table.

CONCLUSION

Based on the findings of this study, it can be concluded that the Innovated 2 n 1 Drafting Table had met the standard in terms of working drawing, bill of materials and estimates and fabrication. It has the capacity to adjust the angle of the Drafting Table platform, easy to move in any direction or position of the drafting table, retract the keyboard platform and armrest mounting position.

RECOMMENDATION

It is highly recommended that the instructional package and production of an Innovated 2 n 1 drafting table be adopted.

ACKNOWLEDGEMENT

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IMPACTS OF PEACE-BUILDING INITIATIVES TO RURAL DEVELOPMENT IN MOUNTAIN PROVINCE, PHILIPPINES

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ABSTRACT

The study sought to determine the peace-building initiatives in Mountain Province. Particularly, it explored the following: the peace-building initiatives and the key players, factors and impacts of peace-building initiatives in Mountain Province. The study used a descriptive qualitative approach. Data gathered on peace-building initiatives in Mountain Province show a discernable trend on the peace efforts of the province which takes-off from a bottom-up approach. These are mostly drawn from grassroots initiatives. Notions of peace-building are founded on the general perception that to sustain durable peace is to address the sources of conflict and discontent. Peace-building initiatives undertaken in Mountain Province cut across socio-economic, political and cultural concerns. A significant track of peace-building mechanisms has been noted, that is, the traditional method of conflict settlements are interfaced with the evolving peace initiatives of the province.

In general, a multi-sectoral group composed of the government, non-government, peoples' organizations and the church sectors has been actively engaged in the peace-building. Such strong collaboration of organizations has stimulated a desirable peace synergy in the province; however, the youth sector is sparsely represented in peace-building efforts. Extenuating factors, although contextualized on the specific peace-building activities, are categorized as cultural factors, political environment, economic concerns, religious influence and collaboration of a multi-sectoral group.

Impacts of the peace-building initiatives are context-specific. Nonetheless, there are sufficient grounds to claim that peace building initiatives have resulted to desirable outcomes.

Key words: peacebuilding, impacts, traditional conflict settlement, grassroots initiatives

INTRODUCTION

Peace-building is a process that facilitates the establishment of durable peace and tries to prevent the recurrence of violence by addressing root causes and effects of conflict through reconciliation, institution building, and political as well as economic transformation.(Boutros-Ghali,1995).

It consists of a set of physical, social, and structural initiatives that are often an integral part of post-conflict reconstruction and rehabilitation. Moving towards this sort of environment goes beyond problem solving or conflict management. Peace-building initiatives try to fix the core problems that underlie the conflict and change the patterns of interaction of the involved parties. They aim to move a given population from a condition of extreme vulnerability and dependency to one of self-sufficiency and well being (Reychler, 2001).

It should be noted at the outset that there are two distinct ways to understand peace-building. According to the United Nations (UN) document *An Agenda for Peace* - peace-building consists of a wide range of activities associated with capacity building, reconciliation, and societal transformation. Peace-building is a long-term process that occurs after vio-

lent conflict has slowed down or come to a halt. Thus, it is the phase of the peace process that takes place after peacemaking and peacekeeping. Many non-government organizations (NGOs), advocate that peace-building is an umbrella concept that encompasses not only long-term transformative efforts, but also peacemaking and peacekeeping. In this view, peace-building includes early warning and response efforts, violence prevention, advocacy work, civilian and military peacekeeping, military intervention, humanitarian assistance, ceasefire agreements, and the establishment of peace zones.

Mountain Province has two legislative districts. District one comprises the municipalities of Sadanga, Natonin, Paracelis, Barlig and Bontoc, while district two comprises the municipalities of Sabangan, Bauko, Tadian, Besao and Sagada. The province is composed of 144 barangays with a total area of about 209, 733 hectares.The Applias, Kankana-eys, Balanagaos, Baliwon and Bontoks are the native

inhabitants of Mountain Province. The Applai and Kankana-ey ethnic communities settle in the western part of the province while the Bontok tribes live predominantly in the central and northern portion of the province. The Balangaos and Baliwon are also found in the eastern portion of the province. (*Kapayapaan Gabay sa Pagunlad ng Sambayanang Filipino CY 2006*)

The 2007 census conducted by the National Statistics shows a total population of 148,661 in Mountain Province.

Generally, Mountain Province is characterized as a mountainous and forested province. Of its total land area, about 92% is classified as high forested mountain, which oftentimes serves as the abode of the rebels and guerillas. As such, the peace and order situation of the province is very much threatened by the insurgency problems. For instance, in the early years, the strategists of the Communist Party of the Philippines (CPP)/ New People's Army (NPA) envisioned the province as the center of their Butterfly Strategy, in which the Command Structure should be based in the provinces of Kalinga and Apayao as head; and the training and staging areas for guerilla formations should be based in the Mountain Province and Northern Benguet, as the body; and finally, Benguet and Baguio City as the tail, should host the Communications and Logistical lifeline to the other guerilla regions. Flowing eastward and westward are the wings of the butterfly that cover Ilocos Region and Cagayan Valley.

Crime is a second threat to the peace and order situation in Mountain Province. As culled from the report of the Provincial Government of Mountain Province, there has been an increasing number of children and women who are victims of violence and human trafficking. The tribal conflicts are also a common problem in the province, as it could suddenly breakout and rapidly escalate and affect the innocent victims. The tribal conflict is oftentimes complicated when insurgent groups interfere and take advantage of the situation and advance their own agenda (*Kapayapaan Gabay sa Pag-unlad ng Sambayanang Pilipino SY 2006*).

To address the peace and order issues and concerns, the provincial government of Mountain Province has employed traditional and government-initiated laws serve as microcosm for effective peace-building measures for indigenous people. These strategies continue to serve as stronghold for peace keeping.

In the annual search for the best Provincial Peace and Order Council (PPOC) in the Philippines, Mountain Province bagged the first place under the first to the third class provincial categories for four consecutive years (i.e. 2004, 2005, 2006 and 2007). With such outstanding performance, the province became a Hall of Fame Awardee in the government's peace program. An impressive feat, indeed, for a province, which is wracked by the sporadic tribal wars and the unprecedented breakouts of armed clashes between the military and the rebels.

In the light of these developments, a study was conducted to find out the experiences of Mountain Province in its peace-building efforts and how these initiatives contribute to the rural development in the province.

This paper looks into the experiences of Mountain Province in Northern Luzon, Philippines in peace-building processes and initiatives. The Province's peace-building program has received national fame starting from the inception of the Provincial Peace and Order Council (PPOC) of the Philippines in all levels of government under Executive Order 309.

Specifically, this study was carried out to answer the following questions:

1) What peace building initiatives are undertaken in Mountain Province ?
2). What factors affect the implementation of peace-building initiatives in Mountain Province?
3) How do these peace-building initiatives create an impact to rural development in Mountain Province?

METHODOLOGY

The study was limited to the following concerns: a) the peace-building initiatives in Mountain Province and the key players in peace-building, b) the factors which affect the implementation of these peace activities, and c) their impacts to rural development. Since peace-building is multi-dimensional and multi-sectoral embracing the social, environmental, and feminist concerns, the study was limited to activities undertaken by government and non-government organizations which are bounded within an explicit framework. The said framework has the common end of seeking peace, not only the absence of war, but the presence of social justice.

The study made use of a case study method. The data were gathered using primary and secondary data gathering. Primary data were obtained from the key informants using interview and focus group discussions, while government documents, minutes of meetings, news archives about the conflicts in Mountain Province, and published studies were used as secondary sources of information. Available documents using content analysis were used to extricate the factors and impacts of the peace-building process in

Mountain Province, and published studies were used as secondary sources of information. Available documents using content analysis were used to extricate the factors and impacts of the peace-building process in Mountain Province. Validations were done through actual observation, follow-up interviews and participation in the multisectoral peace forum.

Informal groups whose actions have led to conflict- prevention in Mountain Province, served as the key informants. These include the people who are directly and actively involved in peace-building projects from the different government agencies, non-government organizations and other civil society groups, particularly the Council of Elders, NGO leaders in the province, staff members of the Provincial Peace and Order Council, and lead players of the grassroots-oriented initiatives who have bonded to arrest a looming community conflict. Purposive and snowball sampling were used in the selection of key informants representing the government and civil society groups, respectively.

RESULTS AND DISCUSSION

Peacebuilding Initiatives in Mountain Province

Ferrer (1994) cites several observations on conflict mediation in the Philippines. First, on the whole, mediation activities were largely done by internal groups. Second, local coalitions can be found undertaking all aspects of mediation activities. Third, the development of peace movement in the Philippines have produced the overlaps in the nature and tasks of these third parties, particularly the local coalitions and institutions.

Mountain Province has been implementing a combination of strategies and approaches towards instituting peace-building in the province. These are discussed as follows:

Community Conflict Resolution via the Council of Elders. Because Mountain Province is being inhabited by a number of different tribes, tribal disputes on boundary, water resources and crime-related incidents are the common sources of community conflicts. These are resolved by the Council of Elders. Among the factors which found to mitigate the peace process include: (a)(, upholding the terms of agreement, (b) knowledge on the nuances of the process and innovations of the peace process, (c) immersion in the affected communities, (d) political and financial support, (e) active participation of multi-sectoral group, (f) presence of a core group in case settlements and, (g)the legal moorings of collecting monetary penalty.

The Sagada_Peace Zone, also known as the Sagada Demilitarized Zone was launched in 1998. After the death of innocent civilians who fell prey to the skirmishes of the government forces and the NPA, the residents of Sagada unilaterally declared their community as out- of- bounds to armed conflict.

Holding of multisectoral peace forum. Multisectoral forums are organized to help address human rights violations allegedly committed by the military. These forums provide as avenues among the victims, military, Philippine National Policie (PNP) and human rights advocates to address the grievances of the victims. Being convened by the church sector, the human rights advocacy and dialogue ensure neutrality in all aspects.

Formation of peace councils. The formation of different peace councils also buffered the peace movement in Mountain Province. The Peace Executive Council, composed of representatives from different sectors, organize dialogues. The Mountain Province's Provincial Peace and Order Council has consistently been adjudged as the best performing PPOC nationwide. Its strengths are attributed to the following : a) favorable political leadership with a clear peace agenda, b) well-coordinated and strong partnership of multi- sectoral agencies and, c) supportive community-based peace mechanisms such as the indigenous culture of settling disputes. In addition, the good information management system of the PPOC ensures that all pertinent records are consolidated and packaged and are made available for entries to the annual search of best PPOC.

Engaging various stakeholders in peace-building process. In the municipality of Tadian, the involvement of the Parents Teachers Community Association (PTCA) also help curb the rise of juvenile delinquency. Members of PTCA round up students loitering around business establishments and herd them back to schools. In Sabangan municipality, the PTCA, together with "barangay tanods" and local police team-up in enforcing municipal ordinances. Sustaining volunteers' interest, attitude of community members, and the political will are among the vital considerations in peace campaigns of the different municipalities in Mountain Province

Religious groups contribute to social healing by conducting bible studies and prayer services to the inmates at the Provincial Bilibid prison. Lack of basic necessities, nonetheless, is a primodial factor which impinges on the inmates' search for inner peace.

These agents advance peace-building efforts by addressing functional and emotional dimensions in specified target areas, including civil society and legal institutions. While external agents can facilitate and support peace-building, ultimately it must be driven by internal forces, and should not be imposed by the

outsiders.

Promoting volunteerism and cooperation. Setting-up quick mechanisms to help the landslide victims in Kayan municipality and in other municipalities have all been employing participatory peace-building efforts. These included an array of medical, trauma and humanitarian assistance from local, national and internationally-based donors. The Igorot culture of *og-ogfo/og-ogbo*, the ability to deliver timely assistance, coupled with media publicity have been greatly beneficial in trying to give a semblance of normality to the people.

To stem the rising tide of curfew violations and liquor ban cases of the minors, the Bontoc Women's Brigade, a civilian volunteer organization was formally organized on December 18, 2002. Media recognition, dynamic spirit of volunteerism, and the diplomatic approach of the women are among the factors that sustain the Women's Brigade.

Instituting government programs on peace-building. Under the government' s peace agenda, integrating former rebels into the mainstream society is a key to social reconciliation and healing. The Social Integration Program seeks to provide the necessary assistance and support to those who have been involved in or affected by armed hostilities to enable them to return to normal life and become productive members of the society. It includes economic, social and psychological rehabilitation and reintegration of former combatants and civilian victims of the internal armed conflicts (CVIACs) as well as amnesty to restore the legal status of ex-rebels. Confidence-building and a fragile policy, which is subject to the priorities of the incumbent administration are eyed as important considerations to the program's implementation.

Undertaking Free and Prior Informed Consent is facilitated by the Mountain Province – National Commission on Indigenous People (NCIP), which necessitates the concurrence of community members before any development project is set up on their ancestral domains. The terms set forth by the community and the availability of the community members determine the pace of the process.

Involvement in monitoring government projects has been a preoccupation of Social Action Development Center (SADC). It has encouraged the civilian volunteer groups to help in its monitoring activities. Maintaining the pool of volunteers, advocacy, and politics are intrusive elements to monitoring.

Establishing community projects such as waterworks address the shortage of basic social services. Through the Community-Based Development Programme (CBDP) of the Episcopalian Church of the Philippines, it seeks to "empower persons and people as stewards of God's creation."

Factors Affecting the Peacebuilding Initiatives in Mountain Province

1. Preserving the peace zone remains to be the most serious impediment as the sanctity of upholding the provisions are entirely dependent on the goodwill of the warring factions. The presence of local government executives is vital to making the peace zone work as had been demonstrated many times. The absence of such executives tend to lend credence to the suspicion that the peace zone were initiated by "communists."

2. Maintaining the pool of volunteers involved in monitoring is a major challenge. Some volunteers get intimidated because their professional expertise and technical capabilities are questioned by the government engineers and contractors. For some, they have difficulty obtaining documents which are needed for monitoring government projects.

3. The dole-out mentality is a major hurdle for project implementers. Some people have this fallacious notion of a non-government agency as a funding agency.

4. A fragile policy covers the Social Integration Program for rebel returnees. When another administration takes over, policies may be subjected to revisions, thereby, muddling the process and bringing confusion to SIP implementers and peace partners.

5. A survey among the local government units reveal the absence of peace research conducted by the municipalities. This implies that research on peace is not on top of their priority list. Conducting peace researches seems to be relegated to the academe, particularly the tertiary level.

Impacts of Peace-building Initiatives to Rural Development

Significant changes have been noted with the peace-building schemes enacted by the different civil groups, local and national government and the church sectors in Mountain Province. Impacts to rural development, however, are invariably context-specific on the peace-building initiative.

1. A discernible reduction of crime in the province

Table 1. Accomplishment of Women Brigade of Bontoc (January1, 2007- Dec. 31, 2009)

Nature of Offense and/or incident	No. of cases responded to	Actions undertaken
Liquor ban	162	Names of establishment were turned over to the Invest Section of Bontoc MPS & subsequently indorsed to the Municipal Treasury's office for proper disposition/payment of fines

Security of Commercial establishments	7	Locks of grocery establishments were checked to see that they are properly secured
Assistance to mauling incidents	8	Women Brigade responded to mauling incidents to prevent the escalation of fistfights and further physical injuries
Assistance extended to police officers in cases of direct assault filed at the barangay or proper court	9	hey served as witnesses during the confrontation held at the Barangay Lupon of Poblacion, Bontoc and/or the proper court where the case is filed
Implementation of Mun. Ordinance no.9 on concealing of deadly weapons	3	During their tour of duty confiscated deadly weapons in the possession of drunks or suspicious persons
Alarm and scandal	11	They responded to alarm and scandal cases and sent home drunk or unruly persons
Physical injury	11	They responded to cases of physical injuries to both parties involved
Alleged carnapping	1	This case was turned over to the Invest Section of Bontoc Municipal Station for proper disposition
Security of properties (wallets, cellphones, monetary valuables of drunk persons)	9	These personal properties were turned over to the Invest Section of Bontoc Municipal Station for proper disposition
Attending to amicable settlements at the Barangay Lupon	5	They often serve as eye witnesses to incidents and shed light on cases like physical injuries, theft, direct assault to agents of persons in authority filed at the barangay lupon in any of the four central barangays of Bontoc
Implementation of Municipal Ordinance on Curfew of Minors	14	All apprehended minors were turned over to the Women's desk and the MSWD for proper action
Assistance to vehicular traffic accidents	3	Women Brigade members extend humanitarian assistance to victims of VTA
Implementation of Municipal Ordinance No.84, s. 2005 otherwise known as Anti-slot machine	3	Women brigade works in partnership with the Bontoc police force in the confiscation of slot machines and any similar gambling device thereby promoting the welfare of school children
Anti-gambling operation	4	Women Brigade are empowered and take active measures in curbing gambling operations in the municipality

The initiatives of the civilians and the local law enforcers to peace-building resulted to a down-turn of municipal ordinance violations such as curfew violations and liquor ban. Based on records, the Women's Brigade has responded to a number of cases from 2007-2009. No less than the Municipal mayor of Bontoc and the Chief of Police of Bontoc Municipal Station vouched that the peaceful situation in the central barangays of Bontoc was largely due to active support of the force multipliers.

Likewise, in the municipalities of Tadian and Sabangan, residents claimed that the efforts of the PTCA have successfully kept the children in school instead of loitering at the business establishments.

Then Governor Maximo Dalog in his 2010 State of the Province Address (SOPA) cited the remarkable decrease in crime volume from 136 in 2008 to only 77 in 2009. He attributed this to the concerted efforts of the police, military, local officials, organizations and the community.

2. Strengthened local capacities for peaceful negotiations

Traditional mechanisms in conflict resolutions are tried and tested means of warding - off potential conflicts and in retaining smooth relations among and between villagers. Since the local and provincial government operates within the context of customary laws, the traditional mechanisms which are being utilized in conflict resolutions have empowered government structures in Mountain Province.

The Council of Elders has gained the respect and trust of the local leaders and the community members because of their breakthroughs in resolving community fractures. They have earned their badge as peacemakers from negotiating amicable settlements, to litigating tribal conflicts.

3. De-escalated and resolved conflicts

Although Mountain Province is known for the erratic outbreak of tribal wars largely due to conflicts over boundary, water resources, accidents, criminal offenses, such notoriety is also outstripped by the widely-reported peaceful resolution of its tribal or community conflicts.

Lengwa (cited in http://www.mountainprovince.net/news) reports that when a team from the National Peace and Order Council (NPOC) visited the municipality of Bontoc in 2008, the members were presented with 18 documented and resolved cases. The cases cited are the following: Betwagan of Sadanga and Bugnay of Tinglayan, Kalinga; barangay Saclit and barangay Poblacion all of the municipality of Sadanga; and Fidelisan of Sagada and

Dalican of Bontoc over land and water resources; murder-related conflict between Madacayan of natoninand Guilayon tribe of Kalinga over the death row of one Edwin Lingbawan of Natonin and Judge Milnar Lammawin of Kalinga; a forcible abduction case between Saclit of Sadanga and Tetep-an, Sagada, vehicular accident which claimed four victims along the Banuae, Ifugao and Nueva Vizcaya roads; and the assistance of the Council of Elders in arresting the 2005 Lepanto Mine Labor arrest.

Without prejudice to the efforts of the other unorganized Council of Elders operating in Mountain Provinc , other cases which they intervened such as the Natonin-Basao conflict and the Sabangan-Tulagao case were likewise included.

Through the active involvement of the Council of Elders in conflict resolutions, community fissures were bridged. Community members are free to conduct their normal activities without being hounded by fear of possible revenge from other communities.

4. Enhanced negotiating power and public speaking skills

While the Sagada peace zone may be viewed as a stop-gap measure to end armed aggressions and the initial efforts of the community were to contain the conflicts, eventually it has set a climate conducive for a more comprehensive peace process. The clamor for peace mobilized the respected elders, church leaders to issue the plea for a demilitarized zone. This meant taking a unified community stand and lobbying to the top brass of the AFP. This also meant maintaining a feedback loop with the underground at the risk of being labeled as NPA sympathizers. While doing so and winning sympathizers to their plight the community leaders honed to participation in forums and constant interaction with different people.

From the focal concern of community members wanting to live in peace and resume their normal lives, the peace concern was expanded and reinvented to include other municipalities of Mountain Province . As insurgency reared, another peace mechanism forayed through the formation of the Peace Executive Council. Throughout the process, peace advocates developed a sense of diplomatic tact and mediation skills in wriggling their way out even through the trying moments. Through intensified networking, and strong collaboration with government line agencies, non-government organizations and people's organizations, some objectives of peace mechanisms became practicable.

5. Enabled the authorities to exercise integrity in protecting the indigenous people

Through the facilitation of the Mountain Province NCIP, the Free and Prior Informed Consent (FPIC) of the Barlig was elicited before development projects like Globe telecommunications, GMA ,and ABS- CBN networks were installed in their area. Similarly, the consent of the community was secured before researches were conducted on mammals and herbal medicines which abound in Mount Amuyao, Barlig.

In Bauko, Mountain Province community members convened and discussed on the issues with the proposal of declaring Mount Kalawitan as a protected forest reserve. The community, however, rejected the offer since there were many restrictions imposed by the DENR under the National Integrated Protected Area System (NIPAS) law such as no hunting and no cutting of trees. Nonetheless, the consultations determined the collective sentiments and will of the community members.

The cornerstone of community-based development initiative is the active involvement of members of a defined community in at least some aspects of project implementation. When potential beneficiaries are included in the decision-making process, they exercise their voice and choice of empowerment. In this sense, the process of taking informed and culturally appropriate decisions whether to grant their FPIC secures the IPs right to self-determination.

6. Improved access to basic social services

Establishing a domestic water supply addresses an acute problem that deprives people of basic entitlement, as well as adversely affects their health. Such is the case of the Bangaan and Tanulong water works funded by the Episcopalian Church of the Philippines- Community Based Development Project (ECP- CBDP). The project has addressed a source of conflict that has gripped the two communities for more than two decades. Due to the limited water supply, neighbors have tried to outwit each other in gaining more access to the limited water supply, such as installing vertical t-connections of pipes rather than horizontal. With an adequate supply of water that is now being provided by the two water systems, these incidents of conflict are expected to be completely obliterated. Also, people no longer have to spend early mornings and late afternoons fetching water. The schools greatly benefitted and they foresee cleaner environment and improved hygiene among pupils and students.

7. Vigilant monitoring of government projects

To ensure that government projects are carried out according to project specifications, the volunteer blocs are still very much active in Bauko and Sadanga. In fact, a Memorandum of Agreement was

forged by SADC with the LGU of Bauko affirming the latter's interest to work cooperatively with SADC volunteers in the interest of transparency and accountability. Substandard irrigation projects at Paracelis, and the SONA project along Halsema Highway were also monitored. Findings were submitted to the Department of Works and Highways for appropriate action.

Participating in project implementation raises the civic responsibilities of the volunteer monitoring team in a democratic procedure of governance.

8. Positive media publicity about the province
Insurgency and tribal wars have always been associated with Mountain Province. Nowadays, regional and even national newspapers have begun to notice of its unique culture, the effectiveness of the elders in conflict resolutions and the natural endowments of the province. The Mountain Province is the second most visited place in the Cordillera. This implies that positive news generated about the province has drawn foreign and local tourists to come to Mountain Province.

9. Increase in business investments

Inextricably linked to the relatively peaceful situation in Mountain Province, local businesses have boomed. Juliet Lucas, Provincial Director of the Department of Trade and Industry affirms this when she claimed that the mushrooming trade ventures into the tourism industry of the province is an upshot of the relatively peaceful environment in Mountain Province. On the average, there are about 350 new businesses which continue to sprout annually within Mountain Province.

The increasing business investment, an active transportation business, increase in sales of souvenir products and good reviews on print media about the province are among the indicators of a progressing local economy. Impacts of other peace-building ventures are hard to quantify. Subjective criteria, based on perceptions and expectations, are indirect and thus not easily quantifiable or tangible. They focus on psychological, cultural and spiritual dimensions of transition to peace. On the other hand, Jeong (1999) contends that it is important to recognize that non-material, human elements are not easy to calculate, and that some kinds of value judgments are inevitably involved in assessing a peace process and outcome.

CONCLUSIONS

Data gathered on peace-building initiatives in Mountain Province showed a discernable trend on the peace efforts of the province which take-off from a bottom-up approach. These are mostly drawn from grassroots-level initiatives. Notions of peace-building are founded on the general perception that to sustain durable peace is to address the sources of conflict discontent. It also evolved out of the realization that armed response to the insurgencies does not provide a practical solution to the problem, but it is the citizens'

aspirations that should prevail.

Conflict-prone communities and more populated municipalities have a wider reserve of peace-building mechanisms compared to the generally peaceful municipalities in Mountain Province. Moreover, a significant track of peace-building mechanisms has been noted- that is, the traditional method of conflict settlements are interfaced with the evolving peace initiatives of the province.

Extenuating factors are found to derail or mitigate the peace-building initiatives. Although contextualized on the specific peace-building initiatives, generally, these factors are categorized as cultural, political environment, economic concerns, religious influence, and the collaboration of a multi - sectoral group.

In general, a multi- sectoral group composed of the government, non-government, peoples organizations and the church sectors have been actively engaged in peace-building. Such strong collaboration of organizations has stimulated - a desirable peace synergy in the province. Although, it has been noted that the representation of the youth sector in peace-building is sparse.

Impacts of the peace-building initiatives are context-specific. Nonetheless, there are sufficient grounds to claim that peace building initiatives have resulted to desirable outcomes. They are the following: a discernible reduction of crimes; strengthened local capacities for peaceful negotiations; de-escalation and resolution of conflicts; enhanced negotiating power and public speaking skills of community residents; exercise of the right to self-determination of projects which affect the Indigenous peoples (IPs) ancestral domains; improved access to basic social services; vigilant monitoring of government projects; positive media publicity about the province; and increase in business investments.

RECOMMENDATIONS

In lieu of the findings and conclusions drawn from the study, the study puts forward the following recommendations:

The findings on the peace-building initiatives in Mountain Province be disseminated by the researcher through a brochure and a peace module.

Also, the Sangguniang Bayan of Bontoc and the Sangguniang Panlalawigan should support the proposal to codify traditional conflict settlements. Legislating the code will institutionalize the use of custo-

mary laws in the settlement of conflicts in the municipality of Bontoc.

The youth sector through the Sangguniang Kabataan representative and the Student Supreme Council president of tertiary schools should join peace forums conducted by the province and should organize peace campaigns for the youth.

Moreover, the faculty and the students should conduct more peace researches. The Mountain Province State Polytechnic College through its Indigenous Knowledge System and Practices program should take the lead in encouraging its faculty and students to contribute to the wealth of indigenous practices related to peace praxis. Through the use of role plays, observations, group discussion and immersions of students, instructors can effectively develop and raise a more peace-oriented consciousness among their students.

The local media should publicize about peace engagements of citizens.

Website maintenance of the province is also imperative to publicly disseminate the peaceful situation of the province.

A training should be conducted by the academic sectors or by LGUs on proper documentation to improve the capacities of the members of peace-oriented groups. Improved documentation practices will likely yield better quality and prompt submission of reports.

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ASSESSING THE DEVELOPED PORTFOLIO GUIDE IN FIELD STUDY 5

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Abstract

The study focused on the assessment of the developed portfolio guide in Field Study 5. The developed portfolio guide comprised of six (6) episodes and it served as their workbook. The first three (3) episodes of the portfolio guide included activities that would intensify the concepts they learned in their Assessment of Student Learning 1. The last three (3) episodes on the other hand, focused on the enrichment of the concepts learned in Assessment of Student Learning 2. After using the portfolio guide, the students assessed its quality based on the following criteria: aims and objectives, instructions and tasks, content, and sequencing and layout.

The study used the quantitative- survey research method in which 150 student- respondents were randomly selected from the five sections of the third year Bachelor of Elementary Education (BEEd). The survey questionnaire was used as basis for the assessment of the developed portfolio guide.

Findings of the study revealed that the students "strongly agree" on the statements used to assess the developed portfolio guide in terms of aims and objectives, instructions and tasks, content, and sequencing and layout. Students who used the portfolio guide gave some suggestions for its improvement such as using of simple and familiar words so that they will easily understand the presentation. This suggestion was well- taken and was already incorporated to improve the output.

Ultimately, this study guide will be used to enhance the students' independent learning and self-evaluation skills. It will also serve as basis for the development of more instructional materials that will develop collaborative learning and metacognitive skills and enhance quality instruction.

Keywords: Portfolio, portfolio guide, Field Study 5, Assessment, Assessment of Student Learning

INTRODUCTION

Classroom assessment has now become more than a technical process of documenting student learning. It has transformed into a tool that also enhances the learning process. The changing focus of classroom assessment is moving towards the evaluation of multiple intelligences through alternative and authentic methods of assessment (Popham, 1999). This concept is emphasized in the Philippine education system when CHED Memorandum Order no.30 (CMO 30) was promulgated on September 13, 2004 for the purpose of rationalizing the undergraduate teacher education in the country to keep pace with the demands of global competitiveness. This memorandum embodies the policies and standards for the undergraduate teacher education curriculum.

Article V, Section 13 of CHED Memorandum order no. 30 states that, "field study courses are intended to provide students with practical learning experiences in which they observe, verify, reflect on, and practice the different components of the teaching-learning processes in a variety of authentic school settings. The experiences will begin with field observation and gradually intensify until students undertake practice teaching". Field Study as a course of study gives pre-service education students more opportunities to experience first- hand actual set- up outside the school where they are enrolled. This form of practical learning is supervised by a mentor who prepares an overview of required work for the pre- service teacher. According to Beltran as cited by Guevarra, et. Al (2007), this phase of pre-service teaching experiences is referred to as "directed teaching, observation, and cadet training".

An important theoretical basis of the field study experience is "reflective education". Dewey as cited by Lucas, et. al. stressed the vital role that reflection played in the growth and development of teachers. Reflection allows the learner explore his/ her experiences in order to arrive at new understandings or insights. According to Boud, et. al. (1997), "just having an experience does not necessarily mean that learning has occurred. The important factor which can turn raw experience into learning is the process of reflection. Brown and McCartney according to Lucas, et. al. (2007) pointed out that reflection on both the content and the process of learning help learner's 'move towards and stay within' a deep approach to learning.

The Field Study courses are composed of six field study subjects and practice teaching. One of the six field study subjects is Field Study 5 which anchors the 6- unit equivalent of Assessment of Student Learning courses. In order to adhere to the new NCBTS' paradigm that "teacher development is transformational, experiential and contextual, it involves engaging teachers to critically reflect on old and new technical knowledge as these facilitate student learning in actual contexts". Hence, portfolios are used by the students to document what they have accomplished as they go to the field for their experiential learning. Portfolio assessment serves as the accomplishing tasks that involve field observations and are intensified into participation.

Portfolios provide this opportunity to evaluate several abilities exemplified by diverse learners. This characteristic benefits both the teacher and student. The former is able to gather additional evidences of learning while the latter is given a chance to monitor oneself by engaging in a self-evaluation process. The use of portfolios is similar to performance tests since it also allows students to demonstrate their understanding of the subject matter by showing accomplished works. But unlike performance tests, the time spent and the outputs included in developing portfolios makes it a richer source of achievement evidences. Furthermore, the affective aspects of learning such as persistence and effort that contributed to the completion of a particular product are also assessed in the process of creating a portfolio (Tolentino, 2009).

The use of portfolio encourages active engagement through reflection and self-assessment, a process by which the learner develops critical and creative thinking (Kubiszyn & Borich, 2004). Likewise, it provides a comprehensive documentation of student growth which is useful for both planning instruction and conducting student evaluation. In addition, the products showcased in portfolios may also be used to learners' progress and achievements in specific subject areas and also across the curriculum (Lankes, 1995). This allows the learner to appreciate the relevance of the subject and the interconnection of all subject areas.

Portfolios are assessed using a rubric that the learners are familiar with. A good assessment system allows students and teachers to have a shared understanding of what constitutes good work (Barrett,1994). These scoring rubrics or guides are used for the evaluation of the entire portfolio rather than to each piece of entry. A wide variety of criteria can be used to evaluate the quality of a portfolio. The scoring criteria will depend on the purpose of assessment and type of portfolio being evaluated. Student self-evaluation facilitates better learning and allows the reader to gain insights about learning strategies used (Popham, 1999). Allowing students to evaluate their efforts and performance promotes appreciation and valuing of the reflection process (Mondock, 1997).

Worksheets and portfolio guides have been developed and published by various authors. However, the intention of this study was to develop a portfolio guide that suites the nature of the learners and the size of the students who go for field study.

STATEMENT OF THE PROBLEM

The present study assessed the portfolio guide that was used by the students in Field Study 5. Specifically, it sought to answer the following questions:
How do the students rate the following elements of the developed portfolio guide?
Aims and objectives
Instructions and tasks
Content
Sequencing and layout

What are the comments and/ or suggestions of the target users to improve the developed portfolio guide?

METHODOLOGY

Research Design

The quantitative- survey method was used since the main objective of the study was to assess the developed portfolio guide based on the

different elements contained in the survey question-naire provided. This was done after the students have used the said portfolio guide when they took up their Field Study 5 subject.

Participants

The participants of the study were the third year students of the Bachelor of Elementary Education (BEEd). This comprised of five (5) sections that included both the General education and Pre- school education majors. The sample size was determined using estimate by proportion at probability of 5%. Furthermore, the 150 respondents were selected using the random- probability sampling.

Instruments

The portfolio guide that was developed was used by the students in their Field Study 5 subject. This comprised of six (6) episodes. The first three (3) episodes of the portfolio guide included activities that would intensify the concepts they learned in their Assessment of Student Learning 1 subject which focused on the principles and basic concepts in assessment and the different traditional assessment methods. The last three (3) episodes on the other hand focused on the enrichment of the concepts learned in Assessment of Student Learning 2 particularly including the different authentic assessment methods, rubrics, grading, and reporting of assessment results.

The developed portfolio guide adopted the OAR Approach, a cyclical pattern of the tasks that the field study students are expected to do in the different learning episodes (Lucas, et.al, 2007). OAR is an acronym used for **O**bserve in actual settings or **O**rganize an output, **A**nalyze/ synthesize the experience, and **R**eflect on the experience. A modification was done by adding an **E**nrichment portion in the episodes aside from the three elements earlier stated. This was added to provide a firming up of the skills learned by the students in each episode.

After using the portfolio guide, the students were asked to assess it using the questionnaire containing the different elements of the portfolio such as aims and objectives, instructions and tasks, content, and sequencing and layout. The questionnaire was composed of statements that the students have to answer on a Four- Point Likert Type Scale (3- Strongly Agree, 2- Agree, 1- Disagree, 0- Strongly Disagree). The instrument will reveal perception of the students regarding their acceptability to the developed portfolio guide.

Data Analysis

Since the research was quantitative in nature, the mean scores and standard deviations were used to determine the assessment of the students to the devel-

oped portfolio guide based on the responses in the survey questionnaire. Perceptions of the students on the different criteria was determined using the descriptive values which are *Strongly Agree* (2.25-3.00)*, Agree* (1.50- 2.24)*, Disagree*(0.75- 1.49) *or Strongly Disagree* (0.00- 0.74).

Findings

Table 1 shows that the students *Strongly Agree* to the statements concerning the aims and objectives of the portfolio guide. An overall mean score of 2.64 means that the different episodes of the guide have very adequate aims and objectives. This implies that the portfolio guide, like any other instructional material, satisfies the basic characteristic that it should have clearly defined objectives and these objectives should be sequential and attainable (Garcia, 2000). It also satisfies the very first and most important stage in organizing portfolio assessment according to Porter and Cleland (1995) which is to decide on the teaching goals and objectives so that students will be guided on what to do and what they need to show in the tasks designed.

Table 1. Assessment of students on the aims and objectives of the developed portfolio guide.

It can be gleaned in Table 2 that instructions and tasks of the developed portfolio guide was rated with an overall mean of 2.58. Highest mean rating of 2.70 was given to the presentation of the tasks in the portfolio guide which was claimed to be sequential and systematic. Since portfolio assessment is designed to develop independent and active learners, it

Statements	Mean	s. d	Descriptive Value
1. The aims are clearly related to the purpose of the portfolio.	2.80	0.40	Strongly Agree
2. The general objectives clearly relate to the purpose of the portfolio.	2.75	0.46	Strongly Agree
3. Each set of the specific objectives leads to the achievement of its relevant general objectives.	2.62	0.55	Strongly Agree
4. All contents are directly relevant to the objectives.	2.64	0.50	Strongly Agree
5. The objectives of each episode in the guide are simple and attainable.	2.40	0.60	Strongly Agree
Overall	2.64	0.5	Strongly Agree

is aptly that instructions are clear and easy to follow and the tasks promote student competence (Sewell and colleagues, 2007).

Table 2. Assessment of students on the instructions and tasks of the developed portfolio guide.

Statements	Mean	s. d	Descriptive value
1. All instructions in the episodes are clear and easy to follow.	2.48	0.52	Strongly Agree
2. Instructions are sufficient in attaining understanding and mastery of the concepts.	2.44	0.54	Strongly Agree
3. Tasks included in the guide covered the expected competencies to be assessed.	2.60	0.53	Strongly Agree
4. Presentation of the tasks in the guide is sequential and systematic.	2.70	0.52	Strongly Agree
5. The tasks included in the guide are authentic, practical and attainable.	2.68	0.62	Strongly Agree
Overall	2.58	0.55	Strongly Agree

As reflected in Table 3, students *Strongly Agree* on the statements pertaining to the content of the Portfolio guide having an overall mean of 2.69. Accordingly, the reflection and enrichment portions of the portfolio guide provided support and additional information to the skills attained in the other tasks accomplished in each episode. This statement obtained the highest mean rating of 2.80. This is aligned to the presentation of Venn (2000) that portfolio assessment should measure performance- based assessment from genuine samples of student work and it should promote self- evaluation, reflection and critical thinking. It also adheres to the claim of Hobar (2001) that portfolio assessment helps students to learn how to take responsibility and improve motivation for learning and achievement.

Table 3. Assessment of students on the content of the developed portfolio guide.

Table 4 also presents the rating of the stu-

Statements	Mean	s. d	Descriptive Value
1. Contents of the guide are directly relevant to the objectives.	2.74	0.44	Strongly Agree
2. The content has been arranged in a logical learning sequence.	2.64	0.50	Strongly Agree
3. The tool/ observation portion of each episode promoted active participation and response from the learner.	2.51	0.54	Strongly Agree
5. The reflection and enrichment portions of the portfolio guide provided support and additional information to the skills attained in the other tasks accomplished in each episode.	2.80	0.40	Strongly Agree
Overall	2.69	0.46	Strongly Agree

dents on the sequencing and layout of the developed portfolio guide. Students strongly agree to all the statements which mean that criteria along sequencing and layout of the portfolio guide are highly acceptable as manifested by the overall rating of 2.60. This finding shows that the portfolio guide generally captured the characteristics of an instructional material which according to Garcia (1989) as cited by De Laza (2000) should be written in clear, correct language suitable to the level of the target learner and should be self- contained and structured in such a way that learners will be able to learn or achieve the objectives independently or with minimal assistance of the teacher.

Table 4. Evaluation of students on the sequencing and layout of the developed portfolio guide.

Comments and/ or suggestions of the students were also asked for the improvement of the portfolio guide. There was a common suggestion

Statements	Mean	s. d	Descriptive value
1. The layout of the pages is well- organized making the guide appear interesting and easy to study.	2.44	0.57	Strongly Agree
2. The type size used for the text is easy to read.	2.83	0.43	Strongly Agree
3. Key points and concepts are well- highlighted for focused attention while reading.	2.49	0.59	Strongly Agree
4. Titles and subtitles are clearly distinguished.	2.72	0.47	Strongly Agree
5. The entry behavior of potential users has been carefully and sequentially described in terms of comprehensive list of knowledge and skills	2.54	0.52	Strongly Agree
Overall	2.60	0.52	Strongly Agree

which was to make use of simple and familiar words so that the students will easily understand the presentation. Hence, they will be motivated to work independently according to their own pacing. This suggestion was well- taken and was already incorporated in the final output.

Conclusions

The findings of the study show that the developed portfolio guide is acceptable to the students in terms of aims and objectives, instructions and tasks, content, and sequencing and layout. Also, the common suggestion was to use simple and familiar words so that students will understand the presentation in the portfolio.

Recommendation

Ultimately, this study guide will be used to enhance the students' independent learning and self-evaluation skills. It will also serve as basis for the development of more instructional materials that will develop collaborative learning and metacognitive skills and enhance quality instruction.

Short Acknowledgment

The researcher acknowledges her students who used the developed portfolio guide and who eventually assessed it. This effort was done because of the desire to deliver quality instruction.

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ACADEMIC PERFORMANCE AND ATHLETIC PARTICIPATION OF THE MOUNTAIN PROVINCE STATE POLYTECHNIC COLLEGE ATHLETES

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ABSTRACT

The study looked into the academic performance of MPSPC athletes. It determined the nature of academic performance and dropped subjects among athletes and how the factors affect their athletic participation and academic performance. The descriptive method of research was adopted using Chi-square and t-test to determine the difference on the academic performance of athletes and the difference on the dropped subjects and Sandler's-A test was used on the factors affecting their academic performance respectively. The study showed that the academic performance of female athletes had higher ratings than the male athletes and the number of dropped subjects of female athletes was higher than the male athletes. On the factors affecting their athletic performance, individual/dual event athletes viewed it at a greater extent. With these results, there is a need for the coaches to conduct regular consultations and meetings with their athletes as one way of monitoring the scholastic standing of their athletes. Coaches and the sports director should prepare a whole year training program for their athletes and to be strictly implemented. The institution should send their coaches and trainers for training otherwise, the college should invite coaches and trainers from other colleges and universities to conduct sports clinic.

Keywords: Academic Performance, Athletes, Mountain Province State Polytechnic College, sports

INTRODUCTION

Athletics, like any other extra-curricular activities is reported to have great effect to academic performance, attachment to school, and social development of a learner. Athletics provides students various opportunities for holistic development where they can demonstrate and cultivate their communication skills, interpersonal and intrapersonal skills, leadership skills, and skill in following instructions.

Participation in sports activities develops a positive attitude and boosts self-confidence. Self-confidence increases level of participation and provides wider arena for higher academic pursuits. With leadership, self-confidence and participation comes acceptance, popularity and feelings of importance and self-worth. Together, these aspects can push students to greater heights.

There are four concerns that athletes must consider. 1) Managing their time effectively and managing stress, (2) remaining academically eligible to play their sport and also meeting expectations of coaches, self and others, (3) performing well in their sport and remaining injury-free, and (4) having a social life. According to Stansburry (2003), in moderation, participation in athletics is healthy. For academically weak students, sports make school more attractive and reinforce the importance of being a good student. However, achievement falls off sharply for students who devote more than 20 hours weekly to extracurricular activities.

Besides struggling to control time, student-athletes are faced with the daunting tasks of performing well in their sport and in the classroom. The problem here is that these two tasks seem to be opposing each other. Because practice, competition, and travel time eats up a large portion of a student-athlete's time, there is no ample time to spend for studying. In addition, some student-athletes face the challenges of dealing with learning difficulties or simply coming to campus unprepared. The problem is that many athletes have been groomed since they were young children to be sport-oriented, and this leaves little room for academic preparation. Student-athletes according to Stansburry (2003) are highly scrutinized individuals in College campus today, and many times their behavior in and out of the classroom reflects the college as a whole.

Yiannakis and Melnick (2005) found out that there are positive effects of sport participation on

grades, self-concept, locus of control, and educational aspirations in addition to a negative effect on discipline problems. Further, the study indicated that athletic participation was not distributed equally across gender or socioeconomic groups. Specifically, the authors noted that there were certain groups that were more likely to participate in high school competitive sports. Those groups included (a) males; (b) students from higher socioeconomic levels; (c) students attending private and smaller schools; and (d) students with previous experience in school and private sport teams.

The study is anchored on Section 19, Article XIV of the 1989 Philippine Constitution which states "The state shall promote physical education and encourage sports programs, league competitions, and amateur sports, including training for international competitions, to foster self-discipline teamwork, and excellence for the development of a healthy and alert citizenry". Recognizing the importance of sports in national life, the constitution under the above provision imposes upon the state the obligation to promote physical education and encourage sports programs.

The Mountain Province State Polytechnic College offers sports programs where varsity program is one of the components. It promotes athletic participation of student athletes in the local and national levels of athletic meets. However, participation in athletics raises many questions with regards to the academic stability of student-athletes. Some researches show that participation in extra-curricular activities such as athletics improves student academic performance. However, some of the athletes could not qualify to participate in such activities because they do not meet the eligibility criteria in relation to grade requirements. It is in this context that the researcher would like to study the academic performance of student athletes of Mountain Province State Polytechnic College.

STATEMENT OF THE PROBLEM

The study looked into the academic performance and athletic participation of the Mountain Province State Polytechnic College athletes. Specifically, it sought answers to the following questions:

1. What is the nature of the following among athletes of MPSPC in terms of:
   a. Academic performance
   b. Dropped subjects
   1.a. Is there a significant difference in the academic performance of athletes according to gender?
   1.b. Is there a significant relationship in the dropout incidence of athletes according to their gender and type of event?
2. How do the identified factors affect the athletic participation of athletes?
   2.a. Is there a significant difference on how factors affect the athletic participation ac-

cording to type of event?
3. How do identified factors affect the academic performance of athletes?
   3.a. Is there a significant difference on the academic performance of the respondents according to the type of event?

METHODOLOGY

The descriptive survey method through the use of document analysis was primarily used in data collection. It was supplemented by questionnaires, observation and informal interview with the respondents.

The study was conducted among all MPSPC student athletes. The data that was obtained from the Registrar's Office and from interviews and data obtained from the respondents were tabulated and analyzed. The researcher made use of the five-point rating scale which is as follows:

A. Average Grade

Arbitrary Value	Limits (Grades)	Descriptive Equivalent
1	1.25 – 1.00	Outstanding (O)
2	1.75 – 1.5	Very Satisfactory (VS)
3	2.25 – 2.00	Satisfactory (S)
4	3.00 – 2.5	Fairly Satisfactory (FS)
5	5.00	Poor (P)

B. Drop-out rate/ In-complete Grades

Scale Equivalent	Descriptive
0	Not a Problem (NP)
1	Less Serious (LS)
2	Moderately Serious (MoS)
3	Much Serious (MS)
4	and above Very Much Serious (VMS)

C. Factors/Effects

Arbitrary Value	Numerical Equivalent	Descriptive Equivalent
5	4.20 – 5.00	Great Effect (GE)
4	3.40 – 4.19	Much Effect (ME)
3	2.60 – 3.39	Moderate Effect (MoE)
2	1.80 – 2.59	Slight Effect (SE)
1	1.00 – 1.79	No Effect (NE)

To correlate the academic performance of athletes in terms of gender and events, chi-square test was used and to differentiate the perception of respondents according to identified variables, T-test test and Sandler's A test were used.

FINDINGS

On Academic Performance

The findings show that the overall average grade of athletes are 2.85 and 2.54 under team events and individual and dual events respectively, both described as fairly satisfactory. Time management could be one of the reasons why they cannot cope with their academic subjects. There is overlapping of activities wherein they sometimes have to sacrifice their academics over sports particularly during peak season of training and during the competition itself. All the athletes in the team events except in the sepak takraw had "Satisfactory" academic performance. This result shows that they might be spending more of their time on athletic-related activities than on their academic studies. The findings are supported by a study conducted by Carodine et al. (2001) wherein he found out that the combination of school and sports causes drops in test scores and more importantly, grade point average. These studies indicate that even the academically gifted students, who are also very talented athletically, have sometimes trouble making the transition from high school to college.

Table 1. Difference of Mean Score between the Average Grade of Male and Female Athletes in Mountain Province State Polytechnic College

Individual/Dual Events	Average Grade			
	Male	DE	Female	DE
1. Taekwondo	2.84	FS	2.45	S
2. Athletics	2.78	FS	2.48	S
3. Table Tennis	2.59	FS	2.27	S
4. Chess	1.73	VS	2.83	FS
5. Badminton	2.44	S	3.0	FS
Mean	2.48	S	2.61	FS

Computed t = -0.87 (**NOT Significant**)
CV (0.05, df-8) = 2.306

could be gleaned from the table that the mean average grade of male athletes in individual/dual events is 2.48 described as "satisfactory" while female athletes garnered a 2.61 mean average described as "fairly satisfactory".

Statistical analysis using t-test revealed a computed t- value of -0.87 which is lower than the critical value of 2.306 at 0.05 level of confidence with a degree of freedom of 8. This means there is no significant difference on the average grade of male and female athletes in Mountain Province State Polytechnic College. This further means that the academic performance of athletes with dual/ individual events was comparable regardless of gender. The finding is in contradictory to the findings of Lee S. Sitkowski (2008) wherein, in his study, there were significant differences between males and females with respect to GPA. The author was surprised to see that the girls' grade point averages were higher in general than the boys. Even though the girls' grade point averages were higher, athletic activity did not show a positive effect on their academic performance.

According to Standsburry (2003), student-athletes must meet the challenge and strains caused by increased academic and athletic commitments and that non-cognitive factor, such as commitment to school or sports play a significant role in determining how successful students will be academically.

On Dropped Subjects

Athletes in baseball and basketball events show a high number of dropped subjects having a numerical rate value of 20 and 18 respectively both described as very much serious. Since these are team events, usually the members of the team should be complete during trainings. As per observation and experience of coaches, athletes usually drop their subjects after the conduct of the athletic activity like after intramurals and other athletic competitions. According to one athlete, because of the absences that he incurred during the training and competition period, he no longer can cope with the requirements of the subjects. As a result, he does not anymore attend classes. He either receives a drop remark or a passing grade.

Table 2. Mean Relationship between Gender of Athletes and their Events According to Dropped Subjects

Individual/Dual Events	Gender	
	Male	Female
1. Taekwondo	5	2
2. Athletics	7	0
3. Table Tennis	0	2
4. Chess	0	4
5. Badminton	0	11
Total Drop Out	12	19

Computed X^2 = 13.50 (**Significant**)
CV(0.05, df-4) = 9.488

Statistical analysis using Chi square test revealed a computed X^2 value of 13.50 which is greater than the critical value of 9.488 at 0.05 level of confidence, with a degree of freedom of 4. This means that there is a significant relationship between the gender of an athlete and his sports events. Events like athletics and taekwondo is male-dominated with high number of dropped subjects while events like badminton and chess were observed to have more female dropouts. From the findings, it could be gleaned that there are 19 total dropped subjects under female athletes as compared to male athletes with only 12.

Role conflict may hinder a student-athlete's ability to reconcile this dual status as both a student and an athlete.

Factors Affecting the Athletic Participation of Athletes

Training program was ranked first among the factors affecting the participation of athletes of MPSPC. According to one athlete, there is no year round training program that they have to follow. Usually, trainings only happen a week before the scheduled athletic competition thus, there is no mastery of skills and techniques in order for them to be competitive. This is particularly observed in dual and team events since they cannot practice on their own. For athletics and other individual events, they can do the training on their own however, they still need to have a training program prepared by the coach or trainer. Based on training principles, the barest minimum period for physical conditioning should be at least six weeks, followed by another six or eight weeks of developing proper skills and another six to eight devoted to "peaking" for competition. This means that the barest minimum period to prepare an athlete for competition is from four and a half months to six months.

Another factor that needs to be addressed is the coach/trainer. Coaches and trainers with relevant trainings and experiences are also needed. Coaches are usually selected or chosen from the winning team during the college intramural. These faculty coaches had only experience as a player when they were in college but don't have proficient skill in coaching and training. Being a coach is different from being a player. A coach or a trainer highly influences the participation of the athletes. According to Mendoza (1999), winning aspect in every competition has been given more weight. This is perhaps the very reason why people employ coaching in the training of their athletes.

Table 3. Comparison of Perceptions of Athletes on the Extent of Effect of Factor affecting the Athletic Participation of Athletes.

Factor	Mean Perceptions			
			Individual / Dual Event	
	Team Event	DE		DE
Group Mean	3.23	MoE	3.74	ME

Computed A value = 0.248 (**SIGNIFICANT**)
CV (0.05, df, 9) = 0.276

From the findings, it could be gleaned that the respondents in the team event perceived the factors affecting athletic participation of athletes as having "moderate effect" with a mean of 3.23 while respondents in the individual/dual event perceived the factors to have "much effect" in their athletic participation.

Statistical analysis using Sandler's A test reveals a computed A value of 0.248 which is lesser than the critical value of 0.276 at 0.05 level of confidence with a degree of freedom of 9. This means there is a significant difference on the perception of the respondents on the extent of effect of factors affecting the athletic participation of athletes of the Mountain Province State Polytechnic College. This further means that both groups of respondents viewed the extent of effect of the factors affecting their athletic participation at different level as evidently seen under physical stress, monitoring of academic performance of an athlete, schedule of practice, support from administration, coaches/trainers and teammates.

Physical stress was perceived by the individual/dual event athletes to have "moderately effect" on their academic performance because of the nature of the event they are handling or playing. Compared to team event group, they perceived it to have "much effect". Team event on the other hand requires more pressure from trainers and coaches most especially on trainings.

Factors Affecting the Academic Performance of Athletes

The finding shows that participation to athletic activities has positive and negative effect to the academic performance of athletes. The student-athletes perceived that athletic participation provides positive impact on the development of leadership and interpersonal skills with a mean of 4.57 described as "great effect". Participation in athletic activities also provides a sense of teamwork, good work ethics and a sense of responsibility to the athletes. The finding is supported by Tower (2008) in his study where he found out that competitive nature, cultural pressure, sports eligibility, and perceived future success due to academic achievement, were reported by several of the participants as reasons underlying their academic motivation. In the speech delivered by President Fidel V. Ramos during the first Philippine Sport Summit held at Teachers Camp, Baguio City, he said that sports is a medium for people empowerment because it enables every Filipino to make himself more reliant, more capable to control his life. He learns the value of solidarity and teamwork in his involvement in sports.

On the negative side, the respondents perceived that strong commitment to athletics results in lower grades. The result is also evident in the previous findings where student-athletes have poor academic performance in the first and second semesters. Over-all perception of the respondents shows that athletic participation had much effect to the academic performance of athletes with an over-all mean of 3.68 described as "much effect".

Table 3.1. Comparison of Perceptions of Athletes on the Extent of Effect of Athletic Participation to their Academic Performance.

Effect	Team Events	DE	Individual/Dual Events	DE
Group Mean	3.68	ME	3.88	ME

Computed A value = 1.68(**NOT SIGNIFICANT**)
CV (0.05, df, 6) = 0.286

Statistical analysis using Sandler's A test reveals a computed A value of 1.68 which is higher than the critical value of 0.286 at 0.05 level of significance with a degree of freedom of 6. This means there is no significant difference on the perception of the respondents on the extent of effect of participation to their academic performance according to type of event.

This further means that both groups of respondents viewed the extent of athletic participation to their academic performances at the same level. "Provides a sense of teamwork, good work ethics, and a sense of responses to an athlete" were both perceived by the respondents as "great effect" because of the fact that these factors are emphasized and advised by coaches, trainers, managers and other sports enthusiasts to great athletes.

CONCLUSIONS

In the light of the findings of the study, the following conclusions are drawn:

1. The academic performance of athletes in team and individual events is fairly satisfactory. The academic performance of female athletes had higher ratings than the male athletes. The number of dropped subjects of athletes is very much serious with athletes in basketball and baseball having the highest number of dropped subjects of 20 and 18 respectively. The number of dropped subjects of female athletes was higher than the male athletes.

2. The athletes identified the 3 top most factors affecting their athletic performance were training program, coaches/trainers and time. Perceptions of athletes on the factors affecting their athletic performance differ from each other. Individual/dual event athletes viewed it at a greater extent.

3. Generally, the athletic participation had a much effect to the academic performance of athletes according to team and individual events. Perceptions of athletes on the factors affecting their athletic performance differ from each other. Individual/dual event athletes viewed it at a greater extent.

RECOMMENDATIONS

Based on the conclusions, the following recommendations are hereto forwarded:

1. The coaches could conduct regular consultations and meetings with their athletes as one way of monitoring the scholastic standing of their athletes. Remedial or special classes should also be given to athletes who participate in athletic competitions. Regular monitoring and evaluation of student-athlete performance can also be initiated.

2. There is a need for the coaches and the sports director to prepare a whole year training program for their athletes and to be strictly implemented. Training should not only be conducted 1 month or 1 week before the competition.

3. The institution can send their coaches and trainers for training. If not, the college should invite coaches and trainers from other colleges and universities to conduct sports clinic not only for coaches but also to the athletes as well.

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Reproductive Periodicity of Endemic *Nematopalaemon tenuipes* "Aramang" Caught by Filter-Net from Aparri Cagayan River Estuary (ACRE)

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ABSTRACT

The Aparri- Cagayan River Estuary is the habitat of the endemic Nematopalemon tenuipes "aramang", which is an export commodity of Aparri, Cagayan. The study generally aimed to determine aspects of the breeding and reproduction of N. tenuipes caught by filter nets at the Aparri Cagayan River Estuary from August 2013 to July 2014. It specifically aimed to determine the different stages of berried and non-berried N. tenuipes, its fecundity and Gonadosomatic Index (GSI). The length and weight were measured while stages of maturity (micro and macro analysis), fecundity and GSI were determined from collected samples. The size of the eggs of the berried N. tenuipes was also measured using Dino-lite. The results showed that the five distinct maturity stages of berried and non-berried aramang occur throughout the observation period wherein nearly ripe (40%) and Ovary Ratio (OR) 3 (38%) were dominant respectively which implies that the species breeds continuously. The size at maturity was found to be 37 mm in TL with an estimated mean GSI of 7.35% and mean fecundity was 1058.85 eggs per female. The mean egg sizes for Stages 1, 2, 3, 4 and 5 were 0.39, 0.52, 0.60, 0.76 and 0.85µm respectively. Therefore, the abundance and further investigation on the reproduction and biology of N. tenuipes must be assessed to determine the sustainable harvest of this species.

Keywords: *Reproductive periodicity, fecundity, gonadosomatic index*

1. INTRODUCTION

Aparri is a place where the river meets the sea. Aparri- Cagayan River estuary (ACRE) is one of the ecosystems of the Cagayan River which is the longest river in the Philippines thus fishing is the main source of income. ACRE is the habitat of the endemic *Nematopalemon tenuipes* locally known as "aramang". It is a soft shelled species, with pinkish-red color which is an export commodity of Aparri and its neighbouring municipalities that brought wealth to the residents due to the richness of its resource. Dried aramang has a very high demand in Aparri because it is commercially exported to other countries, most especially in Japan, where they called it "amiebi". This is also consumed locally mainly for the preparation of bagoong and as fresh food.

The biology of this species had been studied in several areas in Asia. *Nematopalaemon tenuipes* is a major catch of the dol net fishery in most coastal areas of India, providing over 5000T annually (Kizhakudan and Deshmukh, 2009). Early observations of its biology indicate adults inhabitat deep water fed on mud, algae, and decomposing organic matter, exhibited sexual segregation, and breed all year round (with a peak then from July to October) (Kunju 1979, Sukumaran 1983). The minimum size at which the female prawn bred was from 50 to 52mm, at about 8 months old. The maturation of the ovary and the incubation of the eggs (oviposited on special pleopods and then brooded beneath the female abdomen; Harrison 1990) to the hatching stage are likely to be accomplished within about a month.

According to Ayson and Encarnacion (2008), aramang is one of the most dominant native fishery products in the Cagayan valley, particularly at Aparri, Cagayan that needs biological studies. Notably, however, there was a drastic decrease of aramang supply from 1989-1993 due to indiscriminate fishing (BFAR). Furthermore, aramang recorded a production of 4,160 metric tons. (BAS, 2008). Therefore this research focused on the reproductive biology of the said species to provide information or knowledge that can furnish a solid basis for the propagation of the species for its sustainability. In addition, the results of this study will give appropriate measures to protect and conserve the species which is important to the

community and to the region as well. The results of this study will also be the basis in formulating rules and regulations on the proper management of the fishery resources for better economic effort.

2. OBJECTIVES

This research study generally aimed to determine the biology of catch of the filter net fisheries of the ACRE. The specific objectives were: 1. to determine maturity stages of berried and non-berried *Nematopalaemon tenuipes,* its fecundity and GSI, maturity size and peak of spawning; and 2.) to determine the size of the egg of berried *N. tenuipes*.

3. MATERIALS AND METHODS

3.1 Collection of samples
Samples of aramang, of at least 50 individuals, were obtained based on Gentlemen's agreement, preferably at the same time of day, for one year from the catch of commissioned upon their arrival at the landing site. Composite samples were prepared for subsequent measurements of lengths/ weights and segregation into berried and non-berried

3.2 Determination of reproductive effort
About 2 kg of the composite aramang samples obtained were first segregated according to their sexes. The abdominal region of the segregated female individuals were inspected for the presence of eggs to distinguish berried from the non-berried individuals and then the eggs were counted. At least 50 berried individuals were randomly selected, from which measures of individual lengths, weights, and fecundity were taken. The stages of the maturity of the oviposited eggs were determined (cf Kunju 1979). The breeding stages or the maturity stages of gonads of at least 50 non-berried female individuals were also assessed following the classification of Kunju (1979) that is based on the ripeness of the ovary, i.e., the extent to which the ovary fills the space beneath the carapace, and certain characters of the ovum discernible under the microscope. The sizes of eggs were measured with the aid of dino-lite and were photographed.

3.3 Data encoding and initial analyses

Databases were created to encode size and weight data of specimens, gonads and eggs of the collected samples and henceforth updated until the end of the collection period. Frequency and summary tables and graphs were subsequently generated from the databases. Fecundity and the Gonadosomatic Index (GSI) for each species were computed as:
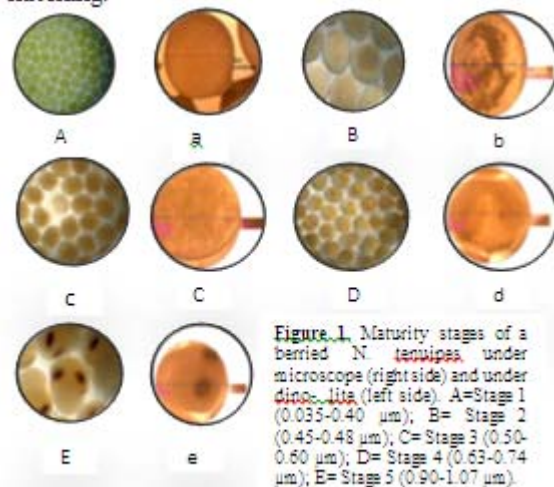
$$Fecundity = \frac{Total\ number\ of\ eggs}{Weight\ of\ eggs} \times Weight\ of\ Ovary$$

$$GSI = \frac{Gonad\ weight}{Body\ weight} \times 100$$

tenuipes

A description of the various maturity stages of berried *N. tenuipes* in this study was presented in figure 1. The maturity stage of the ovaries *N. tenuipes* was described through macro and micro analyses. A maturity stage of berried *N. tenuipes* has been divided into five categories based on the stage of development of the eggs. In stage 1 or Undeveloped the color of eggs is yellow, which became orange on preservation, stage 2 or Developing the eggs is yellowish orange in color, Stage 3 or Nearly ripe eggs are orange in color, Stage 4 or Ripe is light brown in color and ova with small faint eyes and Stage 5 or Spent the eggs is brown in color with ova with two big eyes; ready for hatching.

Out of 550 berried *N. tenuipes* assessed, stage 1 comprised a total percentage of 9.09% with a high value in January (18%), stage 2 composed a total of

Figure. 1. Maturity stages of a berried N. tenuipes under microscope (right side) and under dino-lite (left side). A=Stage 1 (0.035-0.40 µm); B= Stage 2 (0.45-0.48 µm); C= Stage 3 (0.50-0.60 µm); D= Stage 4 (0.63-0.74 µm); E= Stage 5 (0.90-1.07 µm).

18.91% at a high value in April (18.27%), stage 3 consists a total percentage of 40.18 with a high value in August (13.57%), stage 4 has a total of 16% with the highest value in November and February (13.64%) and stage 5 composed a total percentage of 15.82% with the highest value in December (19.54%).

4. RESULTS AND DISCUSSION
4.1 Maturity Stages of Aramang, *Nematopalaemon*

It is evident that *N. tenuipes* breeds continuously, since almost all the five distinct developmental stages were recognized which is the same with the observation of Kunju (1979) where he reported that *N. tenuipes* breeds all year round. However, Stage 3 condition is relatively much greater compare to other maturity stages. In addition, the maturation condition of the stage 4 and Stage 5 do not spawn simultaneously or partial spawning occurred that it has a possibility of advanced stages of development hence it can be inferred that twice spawning occur in which the unripe egg will be spawned in the next cycle. It is also observed that in Ovary Ratio (OR) 5 and Stage 5 the ovary and the eggs have been developing simultaneously. It could thus be seen that the number of double brood which contain gonad and eggs, is relatively large during the month of September. According to Kunju (1979) *Nematopalaemon tenuipes* spawned at least two times before reaching 51 mm size and one or two times beyond 60 mm length. He suggested that the species possibly spawns at least 5 to 6 times during its entire life span.

4.2 Distribution of Maturity Stages of Berried N. tenuipes by Size

Ovarian maturity stages of berried *N. tenuipes* of different size group were presented in figure 2. Adapting the size group categorized by Culasing (2013) on the same species and site of collection, the following size groups were used; small size group- 26 -40 mm, medium size group ranges from 41-60mm and 61 and above belong to the large size group.

Out of the 550 samples collected from the filter net catches during the collecting period (August to July) there was no trace of this size group (26-40 mm) which indicates that the *N. tenuipes* do not breed or bear eggs when they are in the size range from 26-40 mm. This is similar to the result of the study of Kunju (1979) wherein the minimum size of a female prawn breed was 50-52 mm when it is about 8 months old.

The nearly ripe conditions dominated in medium (38.01%) and large size (38.55%). It also revealed that mature ovaries (Stage 4 & Stage 5) were found in the medium and large size group specifically within the range of 55-80 mm. From December to March, there was a sudden increase in the percentage of ripe condition thus indicating their spawning period. However, no spent condition could be noted in the months of April and May so it implies the start of growth of the newly hatched larvae. Thereafter undeveloped condition increases in January due to the newly hatched in December.

Figure 2. Distribution of Maturity Stages of Berried *Nematopalaemon tenuipes*

4.3 Maturity Stages of Non-berried *N. tenuipes*

Illustration of different maturity stages of
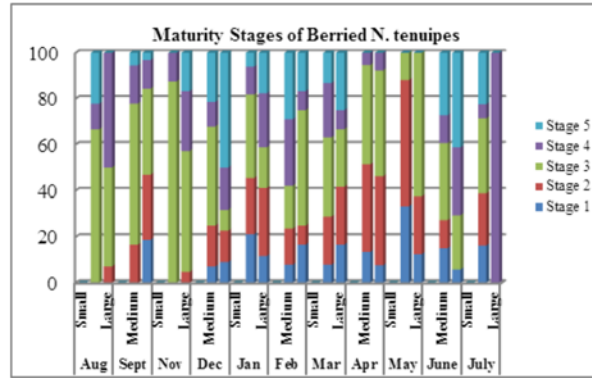
Non-berried *N. tenuipes* was presented in Figure 3 that was based on the classification of Kunju (1979).

Out of 550 non-berried *N. tenuipes* assessed, OR 1 comprised a total percentage of 3.09% with a high value in May (47.06%), OR 2 composed a total percentage of 9.82% with a high value in April (24.07%), OR 3 consisted a total percentage of 25.64 with a value in August (14.89%), OR 4 has a total percentage of 38% with a high value in December and January (12.92%) and OR 5 has a total percentage of 23.45% with a high value in September (22.48%)

It could be noted that OR 1 merely occurred during April and May. However, other maturity stages occurred each month throughout the sampling. It is also observed that OR 4 was dominant among the five distinct maturity stages of non-berried. It was seen that most of the maturity stages occurred all throughout the sampling period with a specific month of dominancy that implies their peak of spawning. In this study, peak of spawning is in the period of December and January in which percentage of occurrence of OR 4 and OR 5 was high.

4.4 Distribution of Maturiy Stages of Non-Berried *N. tenuipes* by Size

A maturity of stages of non-berried female of *N. tenuipes* is presented in figure 5.

Out of the 550 samples collected, S1 (26-40 mm) small size group was only observed in the month of April. The size at maturity of *N. tenuipes* based in this present study was estimated at a size of 37mm. This value was lower compared to the size at maturity of karamote shrimp which was found to be 45.23mm (Conides et.al, 2008) and 1 mm larger compared to the findings of Deshmukh (2009) that the smallest mature individual of *N. tenuipes* is 36 mm.
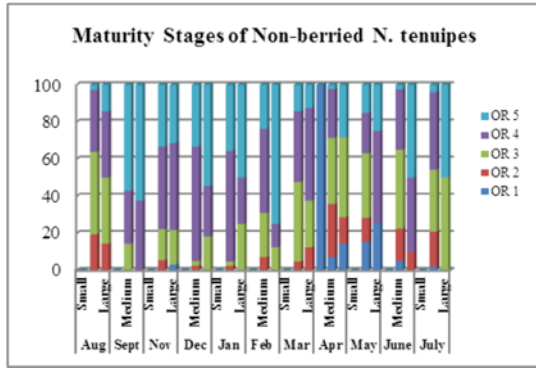
Figure 3. Distribution of Maturity Stages of Non-berried *N. tenuipes*

4.5 Fecundity of Berried Female Aramang, *Nematopalaemon tenuipes*

Fecundity is the number of eggs in the ovary prior to spawning period. This was done by weighing a sub-sample of the ovary then counting individually the eggs. The monthly mean fecundity at different size classes were described in Figure 4.

It revealed that fecundity of Medium size group (41-60 mm) was highest in the month of June with a mean of 1617.6 and lowest in the month of August with a mean fecundity of 478.11. Fecundity of medium size group increased from August to September then decreased in the month of November to January and showed a fluctuating trend of fecundity in the month of February to May. A gradual increase was observed in the month of June then decreased in July. The lowest fecundity of Large size group (61 mm and above) was observed in the month of August with a mean fecundity of 516.84 and highest in the month of June (2314.6). Observed fecundity of large continuously increase from August to September and on January to March and gradually increase in the month of May to June. There was a decrease on the observed fecundity in the months of November to December and in April and July while no small size (26-40 mm) group was observed.

As regard to the size, the lowest fecundity of *N. tenuipes* was during the August sampling with a mean fecundity of 496.43 eggs per female (59.3 mean total length) that indicates periods of peak spawning activity while the highest fecundity was observed in June with a mean fecundity of 1854.58 eggs per female (57.4 mean total length) a period of peak fecundity of the said species. Fecundity of *N. tenuipes* showed a decreasing trend from November to February due to the advancement of the maturity of the ovary of berried which is ready for hatching. In addition to this, *N. tenuipes* has two spawning period during September to November (wet season) and April to July (dry season). According to Kunju (1979), *N.tenuipes* is a perennial spawner with peak spawning during March-April and July-October. The fecundity was found to be 749.78 for medium size (41-60mm) and 1178.27 for large size (61mm & above). It therefore implies that fecundity increases with the body length, with the same situation observed by Albertoni et.al (2002) that showed an increase in number of eggs produced with increasing female size of *M. acanthurus* and *M. macrobrachion* (Deekae & Abowei). According to Sastry (1983) a fecundity and body length relationship is a rule that seem more applicable to crustaceans than to fish. The above statement can support why there are no small size group (below 26to 40mm) observed in the study. The range of absolute fecundity observed in this study was 48.67 to 4250.00 eggs, with a mean fecundity of 1058.85 eggs with a length ranging from 47mm to 88mm. This value was high compared to the result of Deekae and Abowei (2010) who reported that fecundity of *Macrobrachium macrobrachion* was 180-800 eggs but it is stated in the study that the low egg count observed was due to environmental factors, the sampling techniques and the eggs encountered. The fecundity of *Acetes indicus* was lower compared to *N. tenuipes* that has an estimated fecundity of 4333 to 10,300 based on the result of study conducted by Deshmukh (1993). On the study conducted by Deshmukh (2009), he reported that the fecundity of *N. tenuipes* varies from 242-3648 eggs.
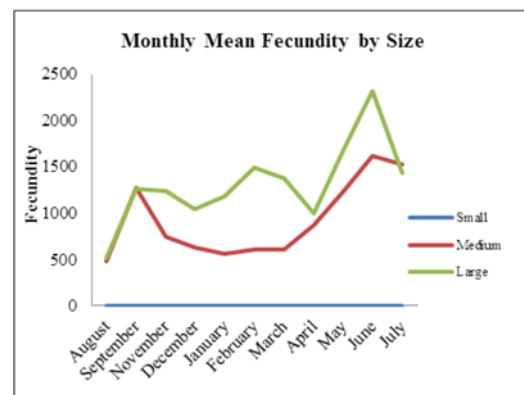

Figure 4. Mean Fecundity of Berried *Nematopalemon tenuipes* at Different Size Classes

6 Gonadosomatic Index of non-berried Female Aramang, *Nematopalaemon tenuipes*

Gonadosomatic Index, abbreviated as GSI, is the calculation of the gonad mass as a proportion of the total body mass. It was calculated by dividing the gonad

weight by the total weight then multiplied it with 100 (Barber & Blake, 2006).

The gonad is located at the carapace. GSI is used to characterize the ovary weight to assess its gonadal maturity expressed in percent of the body weight (Kunju, 1979). The monthly mean GSI of Aramang at different size classes were described in Figure 5.

It revealed that GSI of Medium size group (41-60 mm) was highest in the month of November with a mean of 10.21 and lowest in the month of May with a mean GSI of 4.89. On medium size group, increased GSI was observed in the month of August to November and in June while decreased GSI was observed in the months of December to February and April to May then gradually increased in the month of March. The lowest GSI of Large size group (61mm and above) was observed in the month of May with a mean of 3.66 and highest in the month of September with a mean GSI of 9.19. GSI of large size group increased in the month of August to September and February to March and in December. Decreasing GSI was observed in the month November, January and in July. In this study, small size group (below 26 to 40 mm) was observed to have 2.70%, 7.51% for medium size group (41 mm to 60 mm) and 6.75% for large size group (above 60 mm). It also showed that higher GSI value was observed in medium size compared to large size that implies an indirect relationship between the total length and GSI.

The Gonadosomatic Index (GSI) of *N. tenuipes* showed two peaks; one during the month of September and the other during the month of March. Significant rise in GSI was observed in the month of March (9.54%) and continuously declined during month of April to May and increased in June. The highest peak in March coincides with warm temperature. The highest peak of GSI indicates maturation of the ovary. With regard to the size, it showed a monthly variation of GSI with a decreasing trend with size in which the GSI showed a fluctuating trend except in the month of January to February and April to May that showed a decreasing maturity of the ovary. The estimated minimum and maximum values of GSI of *N. tenuipes* in this study were 0.58% and 95.74% respectively with a mean GSI of 7.35%, at total length ranging from 37-80mm. Highest and lowest mean GSI values were recorded in the month of September (9.75%) and May (4.79) respectively. In this study, the GSI of *N. tenuipes* is higher compare to GSI of Karamote shrimp with GSI value of 9.62% that peaks in May (Conides et.al, 2008).
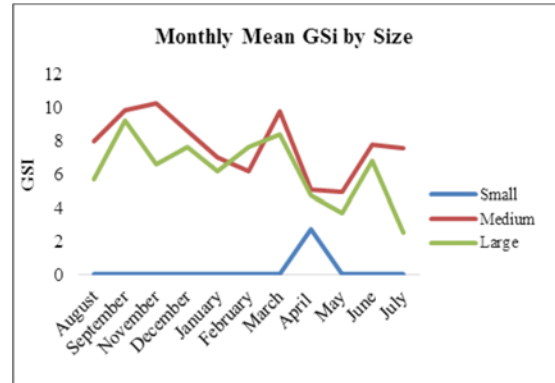
5.

Figure 5. Mean GSI of Non-berried *Nematopalaemon tenuipes* at Different

CONCLUSIONS

Based from the findings of the study, the following conclusions were arrived:
- The five distinct maturity stages of berried *N. tenuipes* occurred throughout the sampling periods indicating a continuous reproductive activity.
- Mean fecundity was 1058.85eggs per female at size ranges 47 to 88mm in total length
- Average GSI was 7.35% at size ranges 37-80mm total length and size at maturity was 37mm in total length

6. RECOMMENDATION

Based on the result of the study the following are highly recommended:
- Reduce/limit fishing effort from the month of September to February or during the last quarter and first quarter of the year.
- Study on how to distinguish male from female *N. tenuipes*.
- Further investigation on the reproduction and biology of *N. tenuipes* must be assessed to determine the sustainable harvest of this species.

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https://en.wikipedia.org/wiki/Gonadosomatic_Index

FISHERFOLKS' PARTICIPATION IN THE MANAGEMENT OF AQUATIC RESOURCES IN CENTRAL AND SOUTHERN OCCIDENTAL NEGROS, PHILIPPINES

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ABSTRACT

The study surveyed the nine (9) coastal communities in Central and Southern Negros with existing Fisheries and Aquatic Resource Management Council (FARMC). Researcher's-made questionnaire was used to gather personal variables of the respondents (FARMC officers and members of every coastal community), using the 1-5 rating scale the respondents rated their extent of participation. The results were: the oldest respondent was 81 while the youngest is 24, dominantly male and married; majority reached college; fishing was the main source of livelihood; most have two dependents; results revealed that their responses were above median meaning fisherfolks are willing to participate and support the program of the government; consider the creation of FARMC as an effective tool of the government for sustainable fisheries; lastly education and locality were the two variables tested to have significant differences in performing the tasks mandated to FARMC. The recommendations: Provide office for FARMC and assigned personnel to assist in all its activities, allocate specific funds for its operation, enhance fisherfolks skills in organizational management, allocate portion of the income from aquatic resources, strengthens the LGU and academe linkages, concerned agencies should continuously monitor and evaluate the present status of the organization and provide appropriate assistance.

Keywords: management, fisherfolks, aquatic resources, participation, coastal community

INTRODUCTION

The Philippines has a diverse coastal environment with the variety of ecosystems ranging from sandy beaches, coral reefs, rocky headlands, mangroves, wetlands, estuaries, lagoons and sea grasses that are extremely rich in biodiversity and productivity[1]. Thus the country is regarded as the epicenter of biodiversity and evolution where the highest concentration of species per unit area was observed[2].

However, its diverse coastal waters are continuously threatened by degradation of the marine ecosystem. Ecological stress brought about by degrading human activities like overfishing and use of illegal fishing cause damage to corals and other marine life. Aside from these, mismanagement was stimulated by misguiding economic policies and faulty institutions[3].The growing realization of the need for a stronger community role in resource management can be seen in a wide range of programs and policies worldwide. Both increased local participation and institutional restructuring have given greater control of resource management to the community and re-

source users[4]. The Philippines is among the few countries that have recorded successful initiatives for community-based resource management, a strategy which has gained importance in the past several years [5][6][7][8]

Section 16 of the R.A. 8550 otherwise known as the Philippine Fisheries Code of 1998 states that the municipal (and city) governments have the mandate to manage "municipal waters" and resources within the territorial boundaries of these municipalities or cities. According to this policy, FARMCs serve as advisory/recommendatory bodies to the local government units or LGUs (R.A. 8550, sec.73) in various aspects in the management of fisheries and aquatic resources. This study was anchored on the theory of Social-Ecological Systems (SES) framework which specifically, offer a tentative rearrangement of the list of relevant attributes of governance systems, Ideally, a framework helps scholars and policymakers to

accumulate knowledge from empirical studies and assessments of past efforts at reforms and to organize their analytical, diagnostic, and prescriptive capabilities[9]. The truths contained in these ideas help to strengthen possible formulation of a sound policy/ program that will enhance FARMC and to further move forward towards a positive change to the lives of the fisherfolks. This was further supported by the idea of community participation as a management tool. The importance of community participation in fisheries management has long been recognized. On the study conducted last 2005 indicated that FARMCs can be one of the effective tools in the management of municipal waters which is consistent in the findings of this study as well[10]. It is therefore stressing the importance of helping people discover their potentials and improve their capability by assuming active roles, which, in turn, raises the consciousness of the community towards sustainable development, having been actively involved in activities that are basic to their survival[11].

Statement of the Problem

This study was conducted to determine the extent of participation of FARMC officers and members representing the fisherfolks in the management of aquatic resources in nine (9) coastal communities in Negros Occidental namely, Pulupandan, Valladolid, San Enrique, Pontevedra, Hinigaran, Binalbagan, Ilog and Hinoba-an and Himamaylan City. Results generated from this study will serve as basis to the possible programs to be implemented in order to enhance further their participation towards protection, management, conservation, and utilization of fisheries and aquatic resources. Also to determine if there is a significant difference on the level of participation of the fisherfolks officers/members in the implementation of FARMC when grouped according to age, sex, civil status, educational attainment, occupation, number of dependents, and locality.

METHODOLOGY

A Researcher's made-questionnaire was used in the conduct of the study. Interview was conducted to the chosen respondents. The respondents of this study were the FARMC officers and members representing the fisherfolks of every coastal community, the respondents are knowledgeable enough to answer the topic being investigated. There were ten (10) respondents for every coastal community which were directly involved in FARMC either an officer or member that can give comprehensive information. Stratified Purposeful Sampling was utilized in the conduct of personal interviews[12].

The survey instrument used to gather data for this study was a researcher's made-questionnaire containing two component parts: Part I gathered information to established the socio- demographic profile of FARMC officers/members, Part II was focused on the level of participation of FARMC officers/members which represents the fisherfolks based on their mandated activities/tasks according to FAO 196 sec. 9 using 1 -5 rating scale.

The data gathering procedure observed the protocol in the conduct of the study, first secure permission to the concerned communities from the proper authorities in order to facilitate the entry to every study sites as well as to the extraction of the needed official documents for the study.

Data collection was carried out by the researcher with the help of the two trained enumerators on the first quarter of the year 2015. To gather a comprehensive information direct contact with key informants through personal interviews was conducted and for the secondary data, desk review was employed.

RESULTS AND DISCUSSIONS
On Respondent's Profile

When the age of the respondents was considered**,** the oldest respondent was 81 years old while the youngest was 24 while most of the respondents' age ranged between 43 – 61 with 57% of the total respondents, results showed that age doesn't matter in the efforts towards conservation, management, and protection of the coastal resources. It is evident that most respondents were male, with the frequency of 58 out of 90 consisting the 64% of the total sampled population which only shows that fishing industry is dominated by male individuals, but with 32 women comprises the 36% were involved in fishing industry only imply that women are now actively participating on what was believed before to be exclusively for men only. Information revealed that based on the civil status most respondents were married individuals comprises 78% of the total respondents which shows that these individuals would give more efforts in the conservation, management, and protection to the aquatic resources because they would consider the future of their children. This idea stemmed from the fact that people now are becoming aware of the present status of our aquatic resources, thus making them more involved in conservation efforts. Data gathered revealed that most respondents were able to reach tertiary level with 50% of the respondents; this indicates that most fisherfolks were educated, thus they have the mental capacities to manage and further strengthens their organization with proper guidance from the concerned agencies. As to the occupation, results showed that most of the respondents were dependent on fishing

which comprises 83.33% of the sampled population with only 15.56% were government employees who are the regular members of FARMC from the local government units. According to number of dependents, results showed that 33 respondents only have 2 dependents which comprise 36.67% of the population this is supported by the fact that most respondents age is between 43 – 61 years old which implied that most of their children are of legal age already.

On the extent of participation of FARMC officers/ members on its implementation

Table 1 results showed that in nine (9) coastal com-

Table 1. Extent of participation of FARMC officers/members in organizing FARMC.

Tasks / Locality	Election of Officers $\overline{x}$	Selection of FARMC Committee $\overline{x}$	Preparation of Organizational Structure $\overline{x}$	Formulation of Internal Policies $\overline{x}$
N= 10/locality				
BINALBAGAN	3.00	2.71	2.43	2.57
HIMAMAYLAN	3.30	2.50	2.60	3.40
HINIGARAN	3.50	3.50	3.63	3.25
HINOBA-AN	3.20	2.60	2.90	3.20
ILOG	4.30	0.00	0.00	4.20
PONTEVEDRA	4.00	3.88	4.00	3.88
PULUPANDAN	3.60	3.80	3.50	3.70
SAN ENRIQUE	3.60	2.90	3.40	4.00
VALLADOLID	3.67	3.83	3.67	3.67

munities, municipality of Ilog got the highest mean score of 4.30 in the election of officers which only imply that most of the respondents participate in choosing who will represent the fisheries sector in the municipal planning development office, while municipality of Binalbagan got the lowest mean score with 3.0 since most of the respondents during the conduct of the survey were new members of FARMC, thus participation is limited. On the selection of FARMC committees and organizational structure, municipality of Pontevedra got the highest score of 3.88 and 4.00 respectively this is because based on the records of Municipal Agriculture Office they had already created committees and established an organizational structure according to the FARMC guidelines. Municipality of Ilog got 0.00 since the Officer-in-charge of Office of Agriculture admitted that they are still working out on the creation of committees and organizational structure. On formulation of internal policies, municipality of Ilog got the highest mean score of 4.20 while Binalbagan got only 2.57 this is because most of the respondents in Ilog has been a long time members and actively involved in the organization which is in contrast to the respondents in Binalbagan which has become a member within a year time only during the survey, thus indicate that there is a need to strengthen internal policies which had been evident during actual interview on a focused-group-discussions.

Results showed that in different mandated tasks of FARMC officers/members, municipality of Ilog got the most tasks well participated by the respondents this is because that most respondents in Ilog has been a long time member which gives them a full under-

standing on the importance of their tasks in the management, conservation and utilization of fisheries and aquatic products, while municipality of Hinigaran got the highest mean score of 4.63 interpreted as high participation in the task of recommending policies for fisheries law enforcement which only mean that respondents in Hinigaran were particular on the different policies for fisheries law enforcement that protect coastal and aquatic resources, this is evident since their organization was being assisted by some Non-Government Organizations which is devoted in coastal conservation and management, this was further strengthened by the report of Hause and Huberman that to be sustainable, organizations need to identify and then cultivate a diverse pool of support[13]., and lastly, municipality of Hinoba-an got the highest mean score 4.90 in mangrove reforestation. The need to rehabilitate mangrove forest is still top priority of the concerned agencies and evident on this situation is the report from Manila Bulletin dated June 18, 2014 that mangroves are being illegally cut in the Banacon Island Mangrove Forest (BIMF), within the Getafe Mangrove Swam Forest Reserve and Wilderness Area in Getafe, Bohol which only means that still mangrove cutting has been a problem in the Philippines. Under Philippine National Aquasilvi Program (PNAP), mangrove reforestation project was realized and since Hinoba-an was identified to be one of the LGU's chosen to be part beneficiaries of the program that explains why they got the highest rating in mangrove reforestation, where CHMSC-Binalbagan Campus is the partner academe.

Education was tested to have significant difference on the following tasks: submission of the list of priorities for consideration in determining who will be allowed to fish, assist the LGU in maintaining a registry of municipal fishing vessels, establishment of fish sanctuary/fishery reserves, and water zonation for construction of fish pens, cages and other structures for culture of aquatic products which only imply that the following tasks requires a certain understanding in carrying out such tasks. On the study of Diaz last 2005 respondent's high level of educational awareness indicated the fisherfolks' ability to absorb new information, which supports the findings in this study that education is a significant factor in carrying out tasks related to coastal management.[10]

Locality was tested to have significant difference on the following tasks: selection of different FARMC committees, preparation of FARMC Organizational structure, and preparation of proposed actions to

address issues concerning fisheries related matter this is because each coastal community requires different approaches suited to the needs of the given place.

Conclusions

Based from the results generated from the study it shows that:

1. Fisherfolks participation has a mean score of 4.06 interpreted as high participation which means that they are willing to participate in the program of the government when it comes to conservation, management, and protection;

2. Consider the creation of FARMC as an effective tool of the government in the protection, management, conservation, and utilization of fisheries and aquatic resources. Based on R.A. 8550 section 16, it is the mandate of the LGU with coastal waters to manage, protect, and conserve the coastal resources thus with the creation of FARMC in every coastal community realizes the very mandate of every local government units.

3. That they have to exert all efforts in realizing such mandate and this could only be done with the cooperation from the people who are directly engaged in the fisheries sector. People in coastal communities are more knowledgeable on the things happening around them and thus, provide possible solutions to the identified problems.

4. Participatory approach in solving problem has been proven to be an effective tool in fisheries resource management and conservation.

Recommendations

Based on the findings of this investigation, the following recommendations were formulated in order to strengthen further the fisherfolks participation towards conservation, management, and protection of aquatic resources:

1. Assign personnel specifically to assist, monitor, and evaluate accredited fisherfolk organizations in their specific locality; that he/she must submit monthly or if not quarterly report to his/her direct supervisor, to provide copies to the concerned agencies when needed. Personnel assigned should be as much as possible a regular employee therefore, should function as mandated based on his/her job description.

2. Maintain an office for M/CFARMC where constant and sustained effort all throughout should be given to the fisherfolk organizations.

3. Allocate specific amount for the operation of M/CFARMC, disbursement should follow COA rules and guidelines.

4. Allocate portion of the income from specific aquatic products to M/CFARMC for its revolving funds to be used to cover expenses that is not allowed under COA rules and guidelines. Financial support to maintain an organization is needed.

5. Trainings and seminars should be attended as much as possible by all FARMC officers and selected members and it should not only be limited to the chairman alone. If possible trainings should be conducted within the locality so that most of the PO's will be able to attend and acquire new and additional knowledge on the preservation, management, and conservation in this manner questions and answers will be given enough time to be addressed.

6. Strengthens the LGU and academe linkages for possible tie up of some projects that would benefit both parties.

7. Agencies assigned in the creation of this council should regularly and continuously monitor and evaluate the present status of the organization in order to assess its present condition and thus be provided with appropriate assistance.

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ICT STATUS OF AN ELEMENTARY SCHOOL: REFLECTIONS OF DIGITAL DIVIDE

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ABSTRACT

This research aimed to determine the ICT status of Efigenio Enrica Lizares Memorial School (EELMS) in terms of ICT access, skills and utilization, in relation to selected variables namely, age, civil status, educational qualification and subject taught. Descriptive type of research methodology was used and data were obtained using the researcher-made survey questionnaire. The respondents were the 37 elementary teachers of Efigenio Enrica Lizares Memorial School, Talisay City, Negros Occidental, Philippines. The results revealed that EELMS teachers manifested low level of ICT access and skill and very low level of ICT utilization. Significant difference in the ICT status was noted when teachers were grouped according to age. When these results were compared with the ICT roadmap of the Department of Education, EELMS is in the poor side of the digital divide. The outcome of the study somehow scratched the surface of the prevailing digital divide in the public elementary education in the Philippines, thus, inviting deeper and further studies in a larger scale. It can be used as basis for reformulating ICT policies and designing development programs for public elementary schools to narrow the digital gap caused by the prevailing factors identified in this pilot study.

KEY WORDS: Computer, Digital Divide, Information and Communication Technology (ICT) ICT Status, Level of Access, ICT Skills, ICT Utilization, Internet, Multimedia

INTRODUCTION

"The very technology that has the power to empower us all also has the potential to increase the problems of social exclusion unless we act to bridge the digital divide ..."

Michael Wills

The 21st century commenced with quantum leaps driven by Information and Communication Technology (ICT). As a product of material culture of humanity, this technology drives the present and shapes the future of society, thus, people are expected to adapt in order to survive. It brings convenience and affords efficiency in every human endeavour. This technology has made living in the modern world a lot convenient and comfortable. Owning or having access to it and having the skills to use it make the individual adapt to the technology-driven environment. ICT is becoming an indispensable tool for future survival.

The information society is shaped and moulded by this technology diffusion. ICT hastened the process of generation, storage, retrieval, distribution and manipulation of information as a significant socio-economic, political and cultural activity. The lack of skill and access to it creates the "digital divide" and can influence and determine the way people will be-have and participate in the information society as reported by UN (2006) report.

The school as a factory of the development of knowledge, skills and competencies must provide substantial inputs and throughputs in order to produce a well-equipped citizenry who will be able to actively participate in the present society. Teachers as the sources, channel and facilitators of learning must be the first to possess and manifest these knowledge and skills. ICT is essential for a modern teacher. The lack of it and the incapability to utilize it put him on the poor side of the digital divide..

Efigenio Enrica Lizares Memorial School (EELMS) is a recipient of the ICT projects and programs of the DepEd and has embraced modernization. It has been resorting to the so-called "capability building" in terms of ICT acquisition manifested by the presence of computers in the office and the laboratory. Likewise, it has been receiving support from DepEd and congressional district in the form of instructional technology donation. Some of the EELMS teachers were sent to attend ICT trainings. On top of these efforts, there is no study yet that describes how ICT

is adopted and to what extent it is utilized for teachers to perform and accomplish basic classroom functions and other teaching-related tasks.

On this premise, this research was conducted as a pilot study to describe the ICT status at EELMS which may constitute the 'digital divide' among its teachers. In order to anchor focus, this study determined the 'digital divide' among EELMS teachers and further identified the variables contributing to this difference associated with access, ownership and ability to use ICT device (Khalid, 2011). It provided a clearer representation of EELMS teachers' skills and capabilities in using ICT for instructional purposes. The output of this paper would lead to the policy formulation and development program in ICT which is necessary to develop human resources who are prepared and ready to survive in the 21st century school and society.

THE PROBLEM

This research aimed to determine the ICT status of teachers of Efigenio Enrica Lizares Memorial School in terms of access, skill and utilization of ICT and further ascertain the factors that contribute to the emergence of 'digital divide' among them. More specifically, this study aimed to answer the following questions :

1. What is the profile of EELMS teachers as to age, civil status and educational qualification?
2. What is the level of access of EELMS teachers to Information and Communication Technology (ICT) when taken as a whole and when grouped according to age, civil status and educational qualification?
3. What is the level of skill of EELMS teachers in Information and Communication Technology (ICT) when taken as a whole and when grouped according to age, civil status and educational qualification?
4. What is the level of utilization of EELMS teachers of Information and Communication Technology (ICT) when taken as a whole and when grouped according to age, civil status and educational qualification?
5. Is there a significant difference in their levels of ICT access, skill and utilization if they are grouped and compared according to the aforementioned variables?

FRAMEWORK OF THE STUDY

The study is anchored on the Concerns-Based Adoption Model (CBAM) which provides a representation of the process by which an educational institution adopts an innovation, views adoption as a developmental process involving complex interaction between an adopting institution, a user system, and a resource system. This promotes collaborative linkage which allows the resource system to assess the individual user's needs and concerns and aimed at answering the user's concerns, arousing higher concerns, and thereby advancing the level of use of the innovation. CBAM was found to be very useful in explaining the actions of teachers and in providing a basis on which to develop a theoretical model for the implementation of portable computers in schools (Newhouse, 2001).

Alvin Toffler (1980), the American futurist, precisely predicted some decades ago what the concurrent society looks like. He described the network environment, mode of communication, emerging technologies and processes involved in many human endeavours. This requires what he called "paradigm shift" in many aspects of human lives. The advancement in Information and Communication Technology (ICT) had made enormous changes in the lives of the 21st century people. The changes are so fast that almost all aspects of human lives are interlaced and affected (Acilar, Ali, 2011).

People around the world are coping with these changes by owning or having access to technology and acquiring new knowledge, skills and competences. These changes are consequences brought about by new tools, processes and the unending emergence of new technologies and innovations.

Governments and their educational institutions took part in the struggle to be in the forefront of the technological race as it determines their socio-economic, political and cultural position in the global community. Their position in the race speaks which side of the technological divide (digital divide) they are situated Towards this end, the Department of Education highlights in its ICT agenda the provisions of ICT hardware, software and related services in the public education. Budgetary requirements are earmarked for the ICT roadmap. Strategic plans were formulated which include the seminars and training of teachers. According to DepED ICT4E Strategic Plan (2008) stressed the need for teachers to embrace the changes ICT will effect on teaching and learning. The teachers' role will shift from the traditional provider of knowledge to the facilitator of learning." The same emphases were stressed in the study of Amiel, Tel (2006).

EELMS teachers have to embrace the technological challenges of survival and they need to equip themselves with necessary skills and tools to be relevant in educating the 21st century learners. DepEd now capitalizes on ICT programs for education stakeholders. Carvin (2000) described the increase of the ICT skills required of the job and identified the different literacies directly connected with digital divide. Tracking from the frontline, it is imperative to describe the EELMS teachers' capability in terms of ICT access, skill, and extent of utilization to determine their position in the digital divide. Suggestions and recommendations can be formulated in order to implement programs and initiatives to narrow the gap created by the digital divide.

THE RESEARCH METHODOLOGY

In view of the nature of the research problem, descriptive research was adopted. It covered 37 regular elementary school teachers as respondents, 13 of whom are baccalaureate degree holders and 24 with master's degree units.

A researcher-made survey questionnaire was used to get information related to the conduct of this study. The first part of the questionnaire contains fields that present basic personal information about the respondents. The questionnaire proper consists of items that determine the faculty members' levels of ICT access, skills and utilization.

It was validated by three professors in the doctoral program of Higher Education Institutions and two ICT professors with master's degree. Test-retest method was used to examine the reliability of the questionnaire.

The researcher presented the proposed research to an in-house panel of evaluators of the college prior to the conduct of the study. Subsequently, approval from the school head was sought and the researcher personally administered the fielding of the questionnaires to the identified respondents. In order to verify the results, a focus group discussion with 13 faculty members picked from the sample together with the grade leaders and principal were asked interview questions related to the school's technology infrastructure and teachers' utilization of different classroom technologies.

They were assured of the confidentiality of their responses. Retrieval of the instruments, collation, processing and treatment analyses of the data followed.

Frequency count and percentage was used to do the profiling of the respondents. Mean was utilized to ascertain the levels of access, skill and ICT utilization of the respondents. T-test for independent samples was utilized in dealing with the significant differences

in the levels of access, skill and ICT utilization of respondents based on age, civil status and educational qualification. digital divide among those who can afford Internet access and the gadgets used to access the web and those that cannot, which defeats the purpose of making the Internet democratic.

Similarly, the teachers exhibited low level of skill in the use of ICT ending up with 2.11 mean rating. The items raised in the instrument that are focused on cognitive, behavioral and operational dimensions of ICT competencies were responded low as reflected by

Table 3				
ICT Skill of EELMS Teachers				
	N	Mean	SD	IN
As a Whole	37	2.11	0.88	Low
AGE				
Below 40 years old	17	2.35	0.97	Low
40 years old and above	20	1.98	0.93	Low
CIVIL STATUS				
Single	8	2.25	0.68	Low
Married	29	2.08	0.64	Low
EDUC'L ATTAINMENT				
Baccalaureate Degree	13	1.94	0.84	Low
With Master's Units	24	2.23	0.9	Low

mean scores falling within 1.94 and 2.35 range. It could be deduced that infusion of technology in teaching and in the performance of classroom work was found to be a daunting task by the teachers. They emphasized during the focus group discussion that their skill in the use of ICT is "too elementary" and not enough to perform the everyday jobs expected of them. Conguent to this finding, the Department of Training and and Employment (2001) of Western Australia noted that underlying the aim of integrating and improving the use of ICT by students is an assumption that teachers themselves are competent and confident in the use of ICT in terms of teaching and learning. A report from the Auditor General released in 2001 indicated that over 95% of teachers interviewed assessed themselves as having more than a basic level of ICT operational skill. The majority of these teachers were not, however, confident about applying ICT to facilitate student learning. These outcomes were consistent with teacher self-reports collected by the Department in the

development of the Learning Technologies Planning Guide for Schools Using Information Technology to Improve Teaching and Learning (Office of the Auditor General, May 2001).

Table 4
ICT Utilization of EELMS Teachers

		Mean	sd	IN
As a Whole	37	0.75	0.68	Very Low
AGE				
Below 40 years old	17	0.92	0.92	Very Low
40 years old and above	20	0.76	0.89	Very Low
CIVIL STATUS				
Single	8	0.81	0.52	Very Low
Married	29	0.69	0.84	Very Low
EDUC'L ATTAINMENT				
Baccalaureate Degree	13	0.61	0.47	Very Low
With Master's Units	24	0.70	0.85	Very Low

Among the three areas defining ICT status, the teachers yielded the lowest score in ICT utilization. When taken as a whole and grouped according to the identified variables, they unvaryingly demonstrated poor utilization of technologies as indicated by mean scores within 0.61 and 0.92 range. They reasoned during the focus group discussion that their very low level of using ICT can be attributed to their lack of access to and skill in the use of ICT. Relative to this, a study to assess knowledge and utilization of Information Communication Technology (ICT) among medicine and health science students and its associated factors in Gondar College of Medicine and Health sciences was carried out. It established the strong positive associations of knowledge, family educational background, and perceived quality of training with ICT utilization (Woreta, 2013).

As reflected in the table, the grouping of respondents

Table 5
Differences in ICT Access, Skill and Utilization of EELMS Teachers

	ACCESS			SKILL			UTILIZATION		
As a Whole	Mean	p value	IN	Mean	p value	IN	Mean	p value	IN
AGE									
Below 40 years old	2.61	0.00	S	2.35	0.00	S	0.92	0.00	S
40 years old and above	2.24			1.98			0.76		
CIVIL STATUS									
Single	2.46	0.78	NS	2.25	0.66	NS	0.81	0.48	NS
Married	2.36			2.08			0.69		
EDUC'L ATTAINMENT									
Baccalaureate Degree	2.31	0.72	NS	1.94	0.43	NS	0.61	0.42	NS
With Master's Units	2.42			2.23			0.70		
S-significant; NS - not significant									

according to civil status and educational attainment did not cause variation in teachers' ICT access, skill and utilization. Indexed according to civil status, the p-values of 0.78 for access, 0.66 for skill and 0.48 for utilization are all higher than the set 0.05 level of sig-

nificance. Hence, the hypothesis stating the no significant difference in ICT access, skill and utilization based on respondents' civil status is accepted. The same result was generated when the grouping was based on educational attainment with yielded p-values of 0.72 for access, 0.43 for skill and 0.42 for utilization which also led to the acceptance of the null hypothesis.

Conversely, age resulted to the divide in teachers' ICT access, skill and utilization. The younger group (teachers who are aged below 40 years old) registered higher levels of ICT access (2.61 versus 2.24), skill (2.35 versus 1.98) and utilization (0.92 versus 0.76) than the older group (teachers who are aged 40 and above). The p-value of 0.00 for the three areas is lower than the 0.05 set level of significance. With this result revealed, the null hypothesis indicating the no significant differences in ICT access, skill and utilization when respondents are grouped according to age is rejected. This is showing that there is notable imparity between the ICT status of young and old teachers with the former representing greater edge in capability and frequency of utilization. The evaluation of ICT knowledge and skills levels of Western Australian Government school teachers found that younger teachers are more likely to have higher levels of ICT competence (Department of Education and Training of Western Australia, file:///C:/Users/Administrator/Downloads/ICT%20report%20FINAL%20(4).pdf).

An unprecedented analysis has found that - despite a number of government policies aimed at tackling the issue - inequalities in Internet access and use mirror those evident in other areas of society.
The research conducted by Dr. Patrick White, a senior lecturer in the Department of Sociology at the University of Leicester, also suggested that adults with lower levels of education, those older than 65, and those working in manual jobs, were less likely to use the Internet for banking, purchasing, looking for work or accessing government services.

These inequalities continue, despite an increase in Internet access and use during the first decade of the 21st century (University of Leceister, 2013).

Age is one of the factors that contributes to digital divide. It seems to be that young people feel more comfortable with the new technology and are able to benefit from it more than older people. Older people are less likely to be interested in in using computer and the Internet. (The Teacher, 2016).

CONCLUSIONS

Based on the findings of the study, the following conclusions were drawn:

1. Most of EELMS teachers are aged below 40 years old, married and have earned master's units.

2. EELMS teachers are on the "poor side" of digital divide as indexed by their low level of access to ICT, low level of skill in ICT and very low level of ICT utilization. Comparatively, the general ICT status of EELMS is falling below the passable standard set by the DepEd ICT benchmarks.

3. Age contributes to the digital divide among EELMS teachers. It is a factor consequential to acquisition and opportunity to avail of Information and Communication Technologies.

4. The teachers' level of ICT access accedes with their level of ICT skill and extent of utilization. Better access to ICT brings about higher level of ICT skill and more frequent utilization of ICT.

RECOMMENDATIONS

Based on the foregoing results of the study, the following recommendations are hereby proposed:

1. Enhance the teachers' ICT status through:
   a. provision of adequate access to computer, Internet and multimedia inside the school.
   b. planning out a well-distributed schedule of access to ICT resources of the school to ensure equity of access among younger and older teachers.
   c. Delivery of intensive training along acquisition of appropriate hardware and software to apply these skills.
   d. peer coaching of ICT skills among mixed group of younger and older teachers.
   e. requiring group outputs among mixed age group in order to evenly distribute among younger and older teachers.

2. Institutionalize the use of ICT through policy formulation and implementation to make sure teachers will adopt and embrace it as part of teaching-learning process, academic resources and capabilities.

3. Forge alliances with other government institutions in the area and form consortia for ICT training.

4. Conduct further study to see the bigger picture of digital divide in the public elementary education in the Philippines.

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SKILLS AND ACCESS TO ICT AND ACCEPTABILITY OF THE COURSE WEB-SITE AMONG EDUCATION STUDENTS: ADOPTION OF BLENDED LEARNING IN A STATE COLLEGE

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ABSTRACT

Many experts in the field of instructional design suggest to explore and match students' ICT skills with their views of how a course web site can support traditional teaching, in order to deliver a more efficient and effective teaching-learning experience. This research aimed to determine the Skills and Access to ICT and the Acceptance of the Course Web site among the education students in a state college in relation to selected variables. The study utilized descriptive-correlational research methodology and data were obtained using the researcher-made survey questionnaire. It covered 157 education students as respondents.The results revealed that students' level of ICT skills is high. Similarly, access to ICT registered was adequate. The level of acceptance of the course website likewise was very high which is indicative of a positive prelude to adopting blended learning. Program and gender did not cause variation in their ICT skills, access and acceptance of the course website. Acceptance of the course website did not relate to students skills and adequacy of access to ICT. The outcome of the study will provide essential information to faculty members on the entry level competency of students in terms of their preparedness and acceptability of a new approach to learning which highlights the ANALYSIS of learners in the ASSURE model which is already an established template for infusing technology in instruction. Curriculum decision-makers, instructional system designers and developers can also utilize the result of this study in formulating institutional strategies and development programs to successfully adopt and implement the Blended Learning approach in the college.

KEY WORDS: ASSURE Model, Blended Learning, Computer, course web site, education students, Information and Communication Technology (ICT), Level of Access, ICT Skills, Internet, Multimedia

INTRODUCTION

During the advent of the 21st century, schools already recognized the relevance to equip students with the skills of using ICT because of the emerging globalization of education (Davis, 1999). Computers and the Internet became the bywords and regarded as viable means of enhancing the competitive edge of a university. Fergusson and Wilson (2001) also noted this in their study, and further discussed that "common response to this situation is to develop an on-line presence in an effort to be part of the global education market." Research and studies are continually conducted to determine the optimal use of ICT in education. Building more knowledge in this field is apparent with the presence of published research journals that can be accessed through online libraries and commercial provider web sites. Studies conducted are not only focused on the effects of ICT on teaching-learning process but also on how teachers and students are responding to it.

While western schools are already evaluating the effects of utilizing ICT and introducing innovations based on the recent outcomes of empirical studies, schools from the developing countries are still building ICT capabilities. They slowly explore its use in education and also attempt to have an online presence forced by the drive of competitive necessity.

Recently, Carlos Hilado Memorial State College joined the race by establishing its web presence (www.chmsc.edu.ph). Few teachers, particularly in the ICT department attempted to take advantage of the technology and initially created their respective course web sites. The intention is to deliver selected class notes and activities, communicate, and solicit feedback from their students. On the other hand, students are able to obtain learning materials 24X7 on and off the traditional classroom although this web presence cannot still be considered as an attempt to introduce eLearning or distance learning but simply to augment channels of instructional delivery.

Students enrolled in these courses, willingly or unwillingly, are exposed to a learning experience which requires skills and background experience in

order for them to optimally engage with the new method and strategy. Common instructional models and frameworks require that prior to the use of any new method or utilization of new technology in delivering instruction, teachers must analyze learners' characteristics and their specific entry competencies before they can set learning objectives (Heinich, et.al., 2002). It is also required to provide students in the learning structure some level of authority and control over their own studies, a venue where they will be able to select and decide which method or strategy will afford them better learning.

Engaging stakeholders in instructional design will provide data regarding the selected use of technology-enabled instructional delivery method in CHMSC, particularly a course web site. It will also identify gaps in the information skills of the students, and other factors that may hinder or motivate them to adopt the use of the web-based instructional delivery method. Information gathered and drawn from this investigation would be an invaluable contribution to the building of knowledge regarding the local use of ICT in education.

Furthermore, exploring the use of modern technology in education will break new grounds in formulating strategies to identify the most appropriate mix of existing instructional delivery systems with the technology-based method, and then offer an opportunity to explore the possibilities of CHMSC eventually adopting Blended Learning as the emerging and ultimate method of improved delivery of instruction thus, providing the students a wide range of learning experience. Faculty members who will attempt to empower themselves with ICT will get insights from this experience. This will likewise help other researchers on the topic to expand this investigation in broadening the knowledge about the effects of ICT in education based on local perspectives. It is based on these premises that the researcher finds it compelling to conduct this study.

OBJECTIVES

This research work aimed to determine the level of skills and adequacy of access to ICT of undergraduate teacher education students and their acceptance of Educational Technology Course Web Site: Introduction of Blended Learning in CHMSC. More specifically, it purported to provide descriptive investigation of the following:

1. The level of ICT skills, adequacy of access to ICT and acceptance of the course websites in Educational Technology among education students when taken as an entire group and when grouped according to program and gender;

2. The significant difference in the students' level of ICT skills, adequacy of access to ICT and acceptance of the course website in Educational Technology when they are grouped according to program and gender;

3. The significant relationship between the students' level of ICT skills and level acceptance of the course web site in Educational Technology ; and

4. The significant relationship between the students'level of adequacy of access to ICT and level acceptance of the course web site in Educational Technology.

FRAMEWORK

"Citizens of today must have a basic understanding of how technology affects their world and how they coexist with technology." (Dugger., et.al. 2003).

Modern technology particularly computers and the Internet made innovations possible to be introduced in schools. At the same time new approaches and models of integrating new instructional technology in the teaching-learning process are continually introduced. Over the years experts in the field of instructional technology like Robert Heinich, Michael Molenda, and their colleagues made a thorough study and published several books in this discipline. They developed a model with an acronym ASSURE which stands for **A**nalyze learner**;** **S**tate Objectives; **S**elect Media and Materials; **U**tilize Media and Materials; **R**equire Learners' Participation; and **E**valuate and Revise. The ASSURE model is a template that comprehensively outlines the different essentials of using the appropriate media, materials, and technology to deliver instruction effectively and efficiently. The model also highlights the need to analyze learners' general characteristics, attributes and specific entry competencies. Knowing the learners' different attributes will provide helpful leads in selecting the instructional methods and media. At the same time, determining the specific entry competencies will afford ease in selecting and introducing the appropriate learning objectives utilizing the said methods and media (Heinich, et.al., 2002). Other Instructional System Design (ISD) models and frameworks likewise emphasized the need to analyze learners' characteristics in order to create and implement very good training and instructional programs (Molenda, et.al., 1996), and even their perception and use about the multimedia to provide picture on how it will be

adopted by the learners (Tennent, L.J., 2003).

This study is strongly anchored on the AS-SURE model. It will first analyze learners' characteristics, other attributes and entry competencies. Learners' attributes included in the study are the gender and the program where they are enrolled in. The learners' entry competencies are taken consideration by assessing their skills in ICT in the cognitive, psychomotor and affective domains. These characteristics and learning domains are the primary considerations for the statement of learning goals. Knowing the learner and identifying the objectives are essentials in order for the teacher to select, design and utilize the intended media and materials for a particular learning situation.

By seriously considering the factors cited and the underlying theories behind the ASSURE model, the college can introduce a student-centered learning innovation well-protracted through a blended learning approach which combines the existing face-to-face or traditional teaching together with e-learning and other technology driven approaches (Ward & LaBranche, 2003; Young, 2002).

The college shall identify the appropriate technology to combine with its well established traditional delivery to provide different solutions to different problems (different mixes of media and delivery) emphasized by Bersin, J., (2004). Hence, blended learning approach can be effectively introduced.
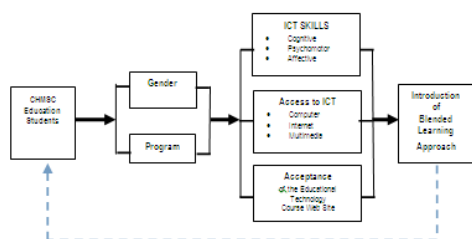

Figure 1: Schematic Diagram illustrating the framework of the study.

METHODOLOGY

The study utilized the descriptive-correlational type of research methodology. It covered 157 third year education students at Carlos Hilado Memorial State College who were chosen using the stratified random sampling method. A researcher-made survey questionnaire, duly validated and tested for reliability, was used to gather information related to the conduct of this study. The skills outlined and included in the questionnaire were taken from the different learning domains identified in the Statement of Objectives section of the ASSURE model of Heinich, et al. (2002). Mean, t-test and Pearson Product Moment Coefficient of Correlations were the statistical tool used for the treatment of data. The level of skills in ICT and adequacy of access to ICT and acceptability of the course websites Educational technology observed the score range indicated below.

Score range	Interpretation
4.21 – 5.00	Very High
3.41 – 4.20	High
2.61 – 3.40	Fairly High
1.81 – 2.60	Low
1.00 – 1.80	Very Low

FINDINGS

The level of skills in ICT among education students in terms of when taken as a whole and when grouped according to program and gender is high. This is showing that students, to an acceptable extent, possessed the desired skills in the use of ICT. Dugger, (2003) noted that life in the 21st century requires much more from every individual the skills in the use of technology because it affects every aspect of human life. He furthered that citizens today must have basic understanding of how technology works and attain technological literacy. Although students reflect the desired cognitive and operational skills in the use of ICT, more improvement has to be proposed in order to achieve the highest level of skill in the use of ICT. On this premised, schools, more than ever, must formulate workable plan and strategy to maximize the use of ICTs in instruction in order to survive and stay ahead in an increasingly competitive environment brought about by globalization, Salgado (2000) explained.

The level of adequacy of access among education students when taken as a whole and when grouped according program and gender is fairly high. This could somehow be attributed to the financial incapa-

Table 1. Students' Level of Skills in ICT

Variables	N	X	SD	IN
A. As a Whole	157	3.87	0.78	High
B. Program				
BEED	90	3.85	0.78	High
BSED	67	3.88	0.77	High
C. Gender				
Male	31	4.01	0.79	High
Female	126	3.83	0.77	High

bility of most students to acquire or to access to technologies. The college mostly caters students stratified to low income group.

Villavicencio (2012) commented that for almost two decades, Filipinos still do not have access to Internet, much more high-speed broadband Internet that have come to be associated with economic progress over the years. Strengthening this claim, Laygo (2015) said that despite having a large market for social-media sites and e-commerce, the Philippines still lags behind in the area of connectivity and Internet penetration. Over 60 percent of the population does not have access to the Internet, making the online users a minority in the Philippines. The lack of greater access to the Internet creates a digital divide among those who can afford Internet access and the gadgets used to access the web and those that cannot, which defeats the purpose of making the Internet democratic.

All these views on inadequacy of access to Internet and technologies suggest that much efforts to increase access to computer, Internet, multimedia and other educational technologies have to be realized.

Table 2. Students' Level of Adequacy of Access to ICT

	N	X	SD	IN
Variables				
A. As a Whole	157	2.92	1.08	Fairly High
B. Program				
BEED	90	2.87	1.08	Fairly High
BSED	67	2.98	1.10	Fairly High
C. Gender				
Male	31	3.04	1.05	Fairly High
Female	126	2.89	1.10	Fairly High

The level of acceptance of the course web site in Educational Technology among education students when taken as a whole and when grouped according to program and gender is high. This is showing high acceptability of technology infusion in instructional delivery. Morgan (2000) suggested for the increased utilization of technologies in the midst of changing environment highlighting the fact that students perceive technology as an easy access to teaching and learning resources.

Anderson (2004) emphasized that online class employs constructivist approach where students are actively engaged with activities such as scenarios, role-playing, what-if stimulations and reflecting writing to humanize the online experience and incorporate collaboration in meaningful ways. The Activities promote student-directed goal setting, personal construction of knowledge, collaboration with peers, develop-

ment of problem-solving skills, completing products that are relevant to their work setting, and authentic assessment. With technology, learning becomes more meaningful, more colorful and enticing. All these provide compelling reasons why students opt to adopt blended learning.

No significant difference exists in the skills in ICT, adequacy of access to technology and acceptance of

Table 3. Level of Acceptance of the Course Website in Educational Technology

	N	X	SD	IN
Variables				
A. As a Whole	157	3.61	0.90	High
B. Program				
BEED	90	3.57	0.90	High
BSED	67	3.67	0.88	High
C. Gender				
Male	31	3.61	0.91	High
Female	126	3.62	0.89	High

the course website among education students when they were grouped according to program. The groupings based on sex generated similar result except on sex where significant variation in between male and female students' ICT skill was found. This gives confirmation to the result of Malaga (2010) research study, "Digital Divide Among the Faculty of a State Educational Institution," which identified sex to be consequential to the acquisition ICT skill. It revealed that male faculty members are more adaptive to technology and have higher frequency of utilization of technology compared to female faculty members. Attributed to these factors, men acquire higher level of technology skills than women do.

Table 4. The Significant Difference in Level of ICT Skills, Level of Adequacy of Access and Level of Acceptability of Course Website in Educational Technology

	Level of ICT Skills			Level of Adequacy of Access to ICT			Level of Acceptance of Course Website in ICT		
Variables	X	P-value	IN	X	P-value	IN	X	P-value	IN
A. Program									
BEED	3.85	0.8	NS	2.87	0.322	NS	3.57	0.09	NS
BSED	3.87			2.98			3.67		
B. Gender									
MALE	4.01	0.06	S	3.04	0.289	NS	3.61	0.89	NS
FEMALE	3.82			2.89			3.62		

Legend: NS - Not Significant

No significant relationship exists between the students' level of ICT skill and level acceptance of the course web site in Educational Technology. This means that the possessed ICT skill is not a relevant factor to students' high or low acceptability of the course website in ICT. Within the paradigm of I-ADAPT theory of Polyhart and Bliese (2006), the antecedents of adaptability are defined in terms of knowledge, skill and ability. It means that an individual's adaptation to pressures imposed by the environment is determined by his competencies to meet with the new requirements .

The students' skill in the use of technology appears to be disregarded in their desire to adopt the course website. This pictures of their readiness to adapt with the trends. As Overstreet (2012) put it, adaptability is a requirement to succeed. There is a constant influx of new people with new ideas and technology never remains stagnant. Technology is constantly evolving and changing. Technology in any given industry can change very quickly leading to new efficiencies. As technology improves, people need to learn new skill sets to utilize the technology. Those who are unwilling to adapt get left behind, and very quickly become obsolete, even in an industry where they were once an expert due to their knowledge and skills. Technology is an area where adaptability is absolutely crucial to a person's chances of succeeding. This is the sheer desire that pushes them to be open to an alternative mode of learning which is the acceptance of the course website

No significant relationship exists between the level of adequacy of access to ICT and the level

Table 5. The Significant Relationship between Level of ICT Skills and Level of Acceptability of Course Website in Educational Technology

	X	r	IN
Level of ICT Skills	3.86	0.408	Not Significant
Level of Acceptance of Course Website in Ed Tech	3.61		

acceptance of the course web site in Educational Technology among education students. This is showing that access to ICT does not relevantly influence their notion to accept or not to accept the course website in educational technology.

The research on "*The Digital Divide in Canadian Schools: Factors Affecting Access and Use of Information Technology*", Looker and Thiessen (2003) examined data from sites survey to provide information pertaining to the use of computers in the educational curricula of 589 Canadian high schools. The data collected revealed that the use of technology relates to the access, patterns of computer use, perceived competence levels and attitudes toward working with computers. The current finding of the study

shows no association between access and level of acceptance of the course website. Based on the cited literature, there are still other factors that may influence students' acceptance of the proposed course website such as skills and attitudes. It could therefore be deduced that inadequate access to technology may not serve as impediment to acceptance or adaptability of the introduced learning innovation which is the course website.

CONCLUSIONS

The findings of the study led to the following conclusions:

1. Education Students of CHMSC demonstrate

Table 6. The Significant Relationship between the Level of Adequacy of Access and Level of Acceptability of Course Website in Educational Technology

	X	r	IN
Level of Adequacy of Access to ICT	2.91	.153	Not Significant
Level of Acceptance of Course Website in Ed Tech	3.61		

the necessary competency in the utilization of ICT, moderate access to ICT and high acceptability of course website in Educational Technology. This calls for augmented efforts to enhance the college technology capability through additional technology access and infrastructure.

2. Program and gender are not factors to difference in students' level of adequacy of access to ICT and acceptance of course website in Educational Technology. Conversely, disparity in ICT skill can manifest when indexed according to gender.

3. The manifested level of acceptability of the Educational Technology course website among CHMSC Education Students does not relate with their level of skill and adequacy of access to ICT.

Recommendations

The findings and conclusions in this study provide useful information for coming up with decisions and alternatives in order to course the direction of the college in terms of the utilization of blended learning approach to teaching and learning.

In this regard, the following recommendations are hereby made:

1. Administration including the Deans

1. 1 Formulate feasible and sound developmental plans and programs for a wide adoption of technology-based instructional media, materials and facilities of the college among teachers and students.

1.2 Formulate policy and guidelines for the appropriate use of technology-based instructional media and facilities of the college.

1.3 Strengthen ICT literacy among faculty members and encourage the use of technology-based instructional media and facilities of the college to blend with the traditional ones.

1.4 Establish or strengthen the unit or committee that will look into the planning, development and implementation of blended learning approach in the College.

1.5 Increase students' experience with the use of computers, Internet and multimedia by prioritizing ICT capability build-up in the college facilities and equipment outlay programs

1.6 Encourage expanded and further studies on the areas covered in this study.

2. Faculty

2.1 Acquire the necessary skills and competence in utilizing ICT in the teaching learning process.

2.2 Develop and combine technology-based media and materials with the existing ones.

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Organizational Culture and Job Satisfaction among Academic and Non-Academic Personnel of Selected Universities and Colleges of Cordillera Administrative Region

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Abstract

This study investigated the dominant organizational culture of the two Higher Education Institutions (HEIs) in the Cordillera Administrative Region (CAR) as perceived by their faculty members and non-teaching personnel. The study included also the assessment of their level of job satisfaction. Two sets of questionnaires were used as the main instrument to elicit data from the respondents. Chi-Square Test of Significance and Mann Whitney were used in the comparison of perception of the two groups of respondents. In the analyses of data, results showed that the dominant organizational culture in the two institutions of higher education in CAR is Person. The findings further show that the two groups of respondents have different level of job satisfaction. Non-academic personnel were very satisfied while the academic personnel were satisfied. The difference in the level of job satisfaction between the two groups is however not significant. The study then recommends that the policy/administration/fringe benefits and possibility of growth in the job should be reviewed periodically by the administrator of each institution in order that the academic personnel will be more satisfied thus leading to effective performance by the academic and non-academic personnel.

Keywords: academic personnel, non-academic personnel, organizational culture, job satisfaction, Cordillera Administrative Region

INTRODUCTION

"The life of an organization depends on the foundation on which it is built. If its foundation is built on solid grounds the institution has a guarantee that it can withstand and continue to actualize" (Newstrom and Davis, 1993).

Organizations are structured group of people which are established to serve specific purposes and to carry out designated missions. To this end, they provide resources, facilities and necessary training to their employees to enable them to accomplish goals and objectives directed toward the greater mission. In return, it is important that employees of an organization share the vision of their organizations in order to attain the purposes (Zarate, 1990).

Culture, a concept borrowed by an organizational theorist from anthropology (Aldefer, 1969), is a pattern of basic assumptions-invented, discovered, or developed by a given group as it learns to cope with its problems of external adoption and external integration that has work well enough to be considered valid. It can also be viewed as a set of understanding on meanings shared by a group of people.

Educational institutions, like any other organizations, exist to foster cooperative human endeavour in order to achieve goals that cannot be realized individually. Behaviour of people in educational institutions, arises from the interaction between their motivational needs and characteristics of the environment, hence, the organizational environment is the key to influencing organizational behaviours (Owen, 1995).

Culture is a source of stability and continuity to the organization and provides a sense of security to its members. Greenberg and Baron (1995) as cited by Rabara (2007) asserted that once an organizational culture, shared perceptions and values are defined, people strongly associate themselves with their organization's vision and mission, and feel a vital part of it. Suffice it to say, a school with keen sense of its identity is far more likely to be successful than the one that has no clear understanding of its reason for its existence.

In addition, a strong culture is said to exist where a staff who responds to stimulus because of their alignment to organizational values. Organizational culture are created, maintained, or transformed by people. An organization's culture is, in part, also created and maintained by the organization's leadership. Leaders at the executive level are the principal source for the generation and re-infusion of an organization's ideology, articulation of core values and specification of norms.

On the same context, there are four types of organizational culture which are person, power, role and task. Specifically, person as a type of organizational culture is centered on need of new members to cooperate, to be a good team to develop good relationship with others. Power is centered on decision-

making in the hands of those who are on top of the organizational structure coming down in the form of directive, orders and instructions. Role on the other hand is centered on the expectations that managers and supervisors being impersonal avoiding the exercises of authority for their own advantage. Task is centered on considering it alright for any member to teach or guide another member on his work if he has knowledge or expertise.

It is the premise of this research that every organization has a culture, whether one realizes it or not, whether it is strong or well organized or weak or fragmented. The leader has the opportunity to develop the work culture into a tool to increase people's effectiveness and to produce a sense of satisfaction in developing the human side of each and every individual (Robbins, 1991).

Leaders have a responsibility to provide a work place for people to grow and develop, and through this, the organization will grow and develop to meet its own financial and social goals. Greenleaf (1997) stated that the business exist as much as to provide meaningful work to the person as it exists to provide a product or service to the customer.

Organizational culture is similar to regional culture. The same person in different organizations, or parts of the same organization would act in different ways. Culture is very powerful. Many institutions have turned themselves around, converting eminent bankruptcy into prosperity. Some did it through financial gimmickry, but those who have become stars did it by changing their own culture.

"The philosophy and beliefs underlying school's activities is hard to pin down and characterize accurately. These are manifested in the values and beliefs that managers espouse, in the ethical standards they demand, in the policies that they are set, in the style with which things are done, in the traditions the organizations maintain."

He added that in people's attitudes and feelings, in the stories that are repeatedly told about happenings in the organization, and in the "Chemistry" as well as "vibrations" that surround the work environment, all these give definition to culture.

The higher institutions of learning particularly those in the Region of Cordillera have their respective unique shared values and beliefs that characterized the setting in which people are committed to one another in an overriding sense of mission. Thus, shared values are the heart-and –soul themes around which an organization rallies. Specially, the present study focused on the two higher education institutions in the region of Cordillera.

Thompson, (1999) emphasized that the people drive the corporate culture and asserted that the guiding concepts are: "who they are, what they do, where they are headed for, and what principles where they will stand for in getting there."

Job satisfaction is a complex and multifaceted concept, which can mean different things to differ-

ent people. Job satisfaction is more on attitude; an internal state. It could be associated with a personal feeling of achievement.

Cherington(1998) further said that satisfaction component approach also called "attitudes-towards-things" states that job satisfaction is made up of different attitudes an individual has regarding different components of his or her job.

From the aforementioned premises and principles, a research on the organizational culture of the two- selected higher institutions of learning was undertaken. It was likewise the intent and purpose of this study to determine the job satisfaction of the personnel of the selected HEIs.

STATEMENT OF THE PROBLEM

This study attempted to investigate the dominant organizational culture of the two selected higher institutions of learning in Cordillera Administrative Region (CAR). Specially, the research sought to answer the following specific problems:

1. What is the dominant organizational culture of the two selected state-owned institutions of higher institutions of learning in Cordillera Administrative Region in terms of person, power, role, and task as perceived by the academic and non-academic personnel?

1.1 Is there a significant difference in the perception of the organizational culture between the academic and non-academic personnel?

2. What is the level of job satisfaction of the respondents?

2.1 Is there a significant difference in the level of job satisfaction between the academic and non-academic personnel?

METHODOLOGY

The research utilized the descriptive method of research in order to determine the perceived existing dominant culture of selected higher institutions of learning in Cordillera Administrative Region (CAR) and the level job satisfaction of the academic and non -academic personnel. Questionnaires were distributed to 216 academic and 176 non-academic personnel of the Mountain Province State Polytechnic College and the Ifugao State University.

Frequency count, percentage and rank were used to determine the perceived dominant organiza-

tional culture of the selected state university and colleges. Mean was used to determine job satisfaction. Chi Square Test of Significance and Mann Whitney Z-Test were used in the comparison of perception of organizational culture between the academic and non-academic personnel.

FINDINGS

Dominant Organizational Culture as Determined by the Academic and Non-academic Personnel

Among the 216 academic personnel, more of them considered Person to be the dominant organizational culture with 69 or

Table 1. Dominant Organizational Culture

ORGANIZA TIONAL CULTURE	ACADEMIC		NON-ACADEMIC		COMBINED	
	F	%	F	%	F	%
Person	69	31.9	52	29.5	121	30.9
Power	58	26.9	34	19.3	92	23.5
Role	44	20.4	41	23.3	85	21.7
Task	45	20.8	49	27.8	94	24.0
Total	216	100	176	100.0	392	100

31.9%; this was followed by Power with 58 or 26.9% of the respondents, then by Task and Role with 45 or 20.8% and 44 or 20.4% respectively. While the non-academic personnel also indicated Person as the dominant organizational culture with 52 or 29.5% of the respondents choosing it. This was followed by Task with 49 or 27.8%; and by Power and Role with 41 or 23.3% and 34 or 19.3% respectively.

The responses of the 392 combined academic and non-academic personnel was also analysed whereby it was indicated that Person had 121 or 30.5% respondents going for it. This means that the combined personnel indicated Person still as the most dominant organizational structure in their schools, followed by Task, Power as the third, and Role as the least dominant.

The computed chi-square ratio of 4.895 with a significance of 0.180 using degrees of freedom is not significant. These data show that the respondents whether they belong to the academic and non-academic personnel had the same perception of the dominant organizational culture in their schools – that is, person, task, power and role in this order.

Level of Job Satisfaction of the Respondents

Results show that of the 216 academic personnel, 117 or 54.2% were satisfied on their job. 68 or 31.5% of them were very satisfied, 16 or 7.4% were fairly satisfied while 13 or 6.0% were very much satisfied and only 2 or 9% among them expressed unsatisfied with their job. The mean of 107.61 shows that the academic personnel were satisfied with their jobs and the standard deviation of 18.490 and coefficient of variation of 17.8% shows that as a group, they were heterogeneous in their responses.

Table 2. Level of Job Satisfaction

RATING	ACADEMIC		NON-ACADEMIC		COMBINED	
	F	%	F	%	F	%
U	2	.9	1	.6	3	.8
FS	16	7.4	17	9.7	33	8.4
S	117	54.2	83	47.2	200	51.0
VS	68	31.5	63	35.8	131	33.4
VMS	13	6.0	12	6.8	25	6.4
Total	216	100.0	176	100	392	100.0
Mean	107.61		109.54		108.47	
SD	18.49		20.05		19.21	
DE	S		S		S	

While for the 176 non-academic personnel, results show that 83 or 47.2% were satisfied in their jobs. 63 or 35.7% were very satisfied, 17 or 9.7% were fairly satisfied and 12 or .65% were unsatisfied in their jobs. The mean of 109.54 shows that non-academic personnel were satisfied on their jobs. The standard deviations of 20.051 and coefficient of variation of 18.30% show that as a group, the non-academic personnel were heterogeneous in their responses.

When both respondents were combined, there were 200 or 51.0% who were satisfied in their jobs, 131 or 33.4% were very satisfied, 33 or 8.4% were fairly satisfied, 25 or 6.4% were very much satisfied and 3 or .8% were unsatisfied. The mean of 108.47 shows that the combined academic and non-academic personnel were very satisfied on their jobs. The standard deviation of 19. 206 and coefficient of variation of 17.70 % show that as a group the respondents were heterogeneous in their responses. This further shows that the respondents regardless of being academic or non-academic personnel were just the same in the levels of job satisfaction.

The mean job satisfaction of the academic personnel was 107.61 with a standard deviation of

18.49 while the non – academic personnel had a mean of 109 with a standard deviation of 20.05. The computed Z – ratio (Mann Whitney Z – test) of 0.839 with a significance of 0.402 is not significant. The null hypothesis of no significant differences is the levels of total job satisfaction between the academic and non – academic personnel are accepted.

The data show that the respondents regardless of being academic or non – academic personnel were just the same in the levels of job satisfaction.

CONCLUSIONS

In the light of the aforementioned findings, the following conclusions were drawn:

1. The academic personnel of the two institutions of higher learning in CAR considered Person as the dominant organizational culture in their schools.
2. All the personnel in the two institutions of higher learning in CAR were satisfied in their jobs. The difference in the level of job satisfaction between the two groups is not significant.

Recommendations

In the light of the above conclusions, the following are recommended:

1. In the attainment of the goals of the institution, the indicators in every type of culture should be developed among personnel of the institution.
2. More researches on variables which may enhance the level of job satisfaction of both academic and non-academic personnel and may improve the level of job performance of the non-academic personnel should be conducted.
3. Policy/administration, salary/fridge benefits and possibility of growth in the job should be reviewed periodically by the administrator of each institution in order that the academic and non-academic personnel will be more satisfied thus leading to effective performance.

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Medicinal Plant Resources and Traditional Health Practices of Households in Albay Province, Philippines

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ABSTRACT

Bicol Region is one of the richest areas in the entire country in terms of biodiversity due to its mountain ranges which are home to various flora and fauna. The study aimed to assess the medicinal plants and document the utilization practices in various households. The three districts of the province of Albay were considered, each district has two sampling sites, one rural and one urban, with three barangays representing the three ecological zones, upland, lowland and coastal. Modified line plot method, backyard sampling and key informant interview were used. A total of 540 respondents were interviewed from eighteen (18) barangays. One hundred ninety (190) medicinal plant species were identified. The first district has the most diverse medicinal flora, but only a small percentage of these plants were known by households to have medicinal values. The most abundant were Musa paradisiaca (banana), Cocos nucifera (coconut), Colocasia esculenta (taro), Phyllantus niruri (sampa-sampalukan) and Manihot esculenta (cassava). The most commonly used were Blumea balsamifera (lakad bulan), for dizziness, Artamisia vulgaris (artamisa) for relapse prevention and good menstrual flow and Coleus aromaticus (oregano) for cough and colds, toothache, back pain and washing of wounds. Respondents were noted to be dependent on medicinal plants in treating common ailments but less than half of the identified species found were utilized. It is recommended that phytochemical screening of the plants be done to discover new drugs which can be used by people especially in rural areas.

Keywords: Albay Province, utilization, medicinal plants, households, traditional health practices

Introduction

For the past years the use of medicinal plants was extensively disseminated both by government and non-government organizations. Information campaigns were initiated in the form of print media, seminar-workshops and establishment of medicinal gardens towards the realization that the population will not only be informed but also that the utilization of herbal medicine will be fully maximized. Promotion on the use of medicinal plants was primarily due its being abundant not only in the Philippines but specifically in the province of Albay. Added to this is its use for common ailments especially in the rural areas where 60% of the Filipino people live below the poverty line (NEDA, 2010).

Health resources are few so that the masses have learned to rely on their indigenous resources. Aside from this, medicinal plants are cheaper compared to commercial pharmaceutical preparations.

Albay province is located at the southern tip of Luzon Island and about 550 km. from Manila. Albay is approximately 13 to 13.5 degrees latitude and 123.25 degrees east longitude. It is located between the provinces of Camarines Sur on the north and Sorsogon on the South. It is bounded on the east by the Pacific Ocean, on the northeast by the Lagonoy Gulf, and on the west and southwest by the Burias Pass. The islands in the north under the jurisdiction of the province are Rapu-Rapu, Batan, Cagraray and San Miguel (Espinas, 2013).

The province is composed of three (3) cities (Legazpi, Tabaco and Ligao) and fifteen (15) municipalities grouped into three (3) congressional districts, namely, first district: Bacacay, Malinao, Malilipot, Sto. Domingo, Tabaco City and Tiwi; second district: Legazpi City, Camalig, Daraga, Manito and Rapu-Rapu; and third district: Guinobatan, Libon, Ligao City, Oas, Pio Duran and Polangui.

This study was anchored on R.A. No. 8423 known as The Traditional and the Alternative Medicine Act of 1997 (TAMA). An act creating the Philippine Institute of Traditional and Alternative Health Care (PITAHC) to accelerate the development of traditional and alternative health care in the Philippines, providing for a traditional and alternative health care development fund and for other purposes.

Statement of the Problem

The study generally aimed to identify the common medicinal plants of Albay used in households and to contribute to the growing body of literature on the role of indigenous or traditional systems of knowledge in development of the province. Specifically, it assessed the different medicinal plants present in the area and documented its utilization practices in various households.

The study provides information on the use of medicinal plants for prevention and treatment of common ailments, thus people will be educated, organized and mobilized on the use of the indigenous resources in laying the foundation of a self-reliant health care delivery.

Methodology

One city and one municipality per district were sampled and in each sampling sites, upland, lowland and coastal areas were represented.

A survey questionnaire was used and key-informant interviews (KII) were conducted in coordination with the barangay council of the identified study areas. Assistance from the barangay health workers was sought in the conduct of the sampling.

The household survey, which essentially constituted the main component of the field work, involved the use of semi-structured interviews with both men and women as household heads. Random samples of 30 households per ecological zone were considered. A total of 540 households constituted the population sampling for this study.

Backyard garden survey of available medicinal plants was identified using the available taxonomic books and other reference materials/ journals and other publications.

Results were analyzed using descriptive statistics such as mean, percentage and ranking.

Findings

In the first district (table 1), a total of one-hundred fifty-three (153) medicinal plants were noted. It was observed that the top five medicinal plants with the highest frequency in Tabaco City were *Artocarpus heterophylla* (langka), *Mangifera indica* (Manga), *Ficus pseudopalma* (Lubi-lubi), *Cordieum variegatum* (Sampalok), and *Euphorbia milii* (Soro-soro) with (40.00%), (37.78%), (31.11%), (28.89%) and (25.56%) respectively. In Tiwi, Albay, the most frequently occurring plants differ from those in Tabaco City where *Moringa oleifera* (malunggay) had the highest frequency value of 35.56%, followed by *Mangifera indica* (Manga), *Manihot esculenta* (Cassava), *Musa paradisiaca* (Banana) and *Euphorbia milii* (Crown-of-Thorns) with 28.89%, 22.22%, 21.11% and 18.89% respectively.

Table 1. List of the most frequently occurring Medicinal Plants in Tabaco City and Tiwi, Albay employing backyard sampling

Tabaco		Tiwi	
Scientific Name	Freque ncy (%)	Scientific Name	Freque ncy (%)
Artocarpus heterophylla	40.00	*Moringa oleifera*	35.56
Mangifera indica	37.78	*Mangifera indica*	28.89
Ficus pseudopalma	31.11	*Manihot esculenta*	22.22
Cordieum variegatum	28.89	*Musa paradisiacal*	21.11
Euphorbia milii	25.56	*Euphorbia milii*	18.89
Musa paradisiacal	24.44	*Ficus pseudopalma*	17.78
Psidium guajava	24.44	*Carica papaya*	17.78
Citrus microcarpa	21.11	*Artocarpus heterophylla*	17.78
Pepperomia pelucida	20.00	*Psidium guajava*	16.67
Sandoricum koetjape	20.00	*Hibiscus tiliaceus*	15.56
Theobroma cacao	20.00	*Cocos nucifera*	14.44
Colosia esculenta	20.00	*Citrus microcarpa*	14.44

In the second district *Mangifera indica* (Mango) has the highest frequency in Legazpi City, this was followed by *Ficus pseudopalma* (Lubi- lubi) and *Moringa oleifera* (Malunggay) both with 22.22%, *Blumea balsamifera* (lakad bulan) with 21.11% and *Carica Papaya* (papaya) and *Musa paradisiacal* (saging) both 20%. The least frequent plants were *Cansium domesticum* Correa (Lansones), *Achras sapota* Linn (Chico), *Pouteria lucuma* (Chesa) and *Gendarussa vulgaris* (Puli) with frequency value of 1.11%.

In Manito, *Musa paradisiaca* Linn. (Batag) has the highest frequency value of 44.44% or almost 80 of the respondents interviewed have this plant at their backyard. This was followed by *Mangifera indica* (Mango) and *Cocos nucifera* (Nuyog) with 38.89% and 35.56 respectively. Some of the least frequent plant species observed in Manito were *Melastoma malabathricum* Linn. (Tonga- tuna), *Nephelium lappaceum* Linn.(Bulala), *Symphytum officinale* (Comprey and *Cucurbita maxima* Duschne (Karabasa), all with 1.11% frequency values.

Table 2. List of the most frequently occurring Medicinal Plants in Legazpi City and Manito Albay employing backyard sampling

Legazpi		Manito	
Scientific Name	Frequency (%)	Scientific Name	Frequency (%)
Mangifera indica	38.89	Musa Paradisiaca	44.44
Ficus psuedopalma	22.22	Mangifera indica	38.89
Moringa oleifera	22.22	Cocos nucifera	35.56
Blumea balsamifera	21.11	Manihot esculenta	33.33
Carica Papaya	20.00	Rosa grandifora	30.00
Musa paradisiaca	20.00	Moringa oleifera	30.00
Coleus aromaticus	18.89	Carica papaya	28.89
Artocarpus heterophylla	18.89	Cordyline frulicosa	26.67
Psidium guajava	16.67	Artocarpus camansi	25.56
Sandoricum koetjape	15.56	Colocasia esculenta	22.22

In the third district (table 3) *Cocos nucifera, Moringa oleifera, Euphorbia milli, Musa paradisiaca, Artocarpus heterophylla* were the top five most occurring medicinal plants in Pioduran with 23.72%, 20.33%, 16.94%, 15.25%, and 14.40% respectively. In Ligao the highest was *Moringa oleifera* with 21.18% followed by *Mangifera indica* (manga,), *Musa Paradisiaca* (saging) *Cocos nucifera(niyog) and Cupressus sempervirens (cypress)* with 20.33%, 19.49%, 16.10% and 14.40% respectively.

From the top five plants, common to Ligao and Pioduran are the *Moringa oleifera (*malunggay*), Musa Paradisiaca* (saging), *and Cocos nucifera* (niyog).

Table 3. Medicinal Plants in Ligao City and Pioduran Albay employing backyard sampling

Pioduran		Ligao	
Scientific Name	Frequency (%)	Scientific Name	Frequency (%)
Cocos nucifera	23.72	Moringa oleifera	21.18
Moringa oleifera	20.33	Mangifera indica	20.33
Euphorbia milli	16.94	Musa Paradisiaca	19.49
Musa paradisiaca	15.25	Cocos nucifera	16.10
Artocarpus heterophylla	14.40	Cupressus sempervirens	14.40
Mangifera indica	14.40	Citrofortunella microscarpa	12.71
Morinda citifolia	13.55	Pepperonia pelucida	11.86
Blumea balsamifera	12.71	Psidium guajava	11.01
Carica Papaya	11.86	Blumea balsamifera	11.01

Table 4 shows the percentage utilization of the medicinal plants by the residents of Tabaco City and Tiwi, Albay. A few numbers of plants are used by the residents both in Tabaco City and Tiwi, Albay and a large percentage of the plants, although known to have certain medicinal uses, are not being utilized. The coastal areas have the highest percentage of utilization, almost all the households use the medicinal plants. Of the ninety (90) respondents, eighty (80) households used medicinal plants in Tabaco City and eighty three (83) in Tiwi, Albay.

Table 4. Utilization of Medicinal Plants in Tabaco City and Tiwi, Albay

Barangay	No. of species identified	Percent utilized	No. of households using
Tabaco City			
Brgy. Tabiguian (upland)	101	27	28
Brgy. San Vicente (lowland)	104	26	23
Brgy. Fatima (coastal)	69	38	29
Total			**80**
Tiwi, Albay			
Brgy. Maynonong (upland)	68	27	26
Brgy. Nagas (lowland)	118	20	28
Brgy. Bolo (coastal)	90	39	29
Total			**83**

In the second district of Albay, Table 5 shows that the Barangay with the most number of medicinal plants identified in Legazpi City was Dita (lowland), with 116 identified species. Only 28% of these medicinal plants were utilized by the 28 out of 30 households. In Manito, Barangay Pawa (coastal) has the most number of identified medicinal plants with 111. Malobago (lowland) has the highest percentage of utilized medicinal plant with 41%. All the respondents that were interviewed in Barangay Pawa and Malobago used the medicinal plants.

Table 5. Utilization of Medicinal Plants in Legazpi City and Manito, Albay

Barangay	No. of species identified	Percent utilized	No. of households using the Plants
Legazpi City			
Brgy. Imalnod (upland)	95	32%	29
Brgy. Dita (lowland)	116	28%	28
Brgy. Puro (coastal)	111	30%	26
Total			**83**
Manito, Albay			
Brgy. Pawa (upland)	111	36%	30
Brgy. Cabacongan (lowland)	97	37%	29
Brgy. Malobago (coastal)	105	41%	30
Total			**89**

The utilization of medicinal plants in the third district of Albay (table 6) represented by Ligao and Pioduran showed the highest utilization percentage of the plants. Cabarian and Marigondon which represented the coastal areas in both sampling sites got the highest percentage of utilization of the medicinal plants. Both the urban and rural sampling sites still use the plants before they resort to commercially synthesized medicines from the drug stores. This was noted in the interview conducted.

Table 6. Utilization of Medicinal plants in Ligao City and Pioduran Albay

Barangay	no. of species identified	Percent utilized	No. of household using the plants
Ligao			
Tastas	54	70.0	20
Tinago	62	48.4	21
Cabarian	47	97.9	23
Total			**63**
Pioduran			
Agol	40	72.5	28
Caratagan	60	85	26
Marigondon	40	95	30
Total			**84**

Table 7 shows the percentage occurrence of medicinal flora in the backyards of households in the Province of Albay. The top ten occurring medicinal plants were *mangifera indica* (manga), 31.67%, *Cocus nucifera* (nuyog), 20.19%, *Artocarpus heterophylla* (langka) 18.52%, *Musa paradisiaca* (saging), *Moringa oleifera* (malunggay) 17.78%, *Carica papaya* (Tapayas), 16.67%, *Manihot esculenta* (kamoteng-kahoy),14.63%,*Colocasia esculenta* (gabi),14.44%, *Blumea balsamifera* (lakadbulan),13.89%, and *Coleus aromaticus Benth* (oregano) with 12.59%.

Most of these plants are being cultivated not only for medical purposes but also as ornamental as well as a food source.

Table 7. Percentage occurrence of medicinal flora sampled in the backyards of households in the Province of Albay

Species	Common Name	No. of Backyards with observed species	Percentage Occurrence (n=540)
Mangifera indica	Mangga	171	31.67
Cocos nucifera	Nuyog	109	20.19
Artocarpus heterophylla	Langka	100	18.52
Musa paradisiaca	saging	99	18.33
Moringa oleifera	malunggay	96	17.78
Carica papaya	Tapayas	90	16.67
Manihot esculenta.	Kamoteng-kahoy	79	14.63
Colocasia esculenta	Gabi	78	14.44
Blumea balsamifera	Lakadbulan	75	13.89
Coleus aromaticus Benth.	Oregano	68	12.59
Psidium guajava	bayabas	61	11.30
Capsicum frutescens	Sili	56	10.37
Ficus pseudopalma	lubi-lubi	55	10.19
Rosa grandiflora	Rose	53	9.81
Artemisia vulgaris	Artamisa	52	9.63
Ixora coccinea	santan	44	8.15
Ananas comosus	Pinya	42	7.78
Citrus decumana	Lukban	42	7.78
Theobroma cacao	Cacao	42	7.78

Of the one hundred ninety (190) identified plants, table 8 shows the top ten commonly used by the households and its utilization. Almost all of the plant parts are used as medicine to cure minor illnesses.

Table 8. Plant Parts Medicine and their Utilization

Scientific Name/ Common Name	Use	Parts used/ Utilization/Preparation
Mangifera indica (Mangga)	Cough, colds, kidney trouble, LBM	Decoction of leaves is used as oral tonic water for people suffering from cough and colds. Decoction of bark is for treatment of LBM
Cocos nucifera Nuyog	Kidney problem, UTI, diarrhea, skin disease, gas pain High blood	Meat and juice of the coconut is used to treat kidney problem, UTI, gas pain. Juice is used to prevent diarrhea. Decoction of young leaves is used to cure high blood.
Artocarpus heterophylla Langka	Wound	Sap is used to cure wounds.
Musa paradisiaca saging	Wound	Crushed with both hands and applied to the wound.
Moringa oleifera malunggay	Kidney trouble, colds, ulcer, fever, allergy, boils Wounds, stomach ache itchiness, , insect bites, toothache, high blood	Decoction of leaves is used for kidney trouble, colds, ulcer, fever, toothache and allergy. Pounded stem is used for poultice for stomach ache, itchiness, insect bites and boils. Fried seed is taken by mouth to prevent high blood pressure
Carica papaya Tapayas	Dog bite	The sap of the fruit is applied on affected area.
Manihot esculenta Kamoteng-kahoy	Stomach ache	Decoction of leaf is used for treatment of stomach ache

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Scientific Name/ Common Name	Use	Parts used/ Utilization/Preparation
Blumea balsamifera Lakadbulan	Cold, cough dysmenorrhea, dyspepsia, influenza, chest pain	Decoction of leaves is used as tonic drink for cold, cough dysmenorrhea, dyspepsia, influenza and chest pain. Leaf extract can be used as poultice for chest pain.
Coleus aromaticus Benth. Oregano	Cough, colds, fever, toothache, stomach ache, headache, wounds,	Decoction of leaves is use as oral tonic water to cure colds, cough, headache, stomach ache and fever. It is used to wash wound. Leaves are chopped into fine pieces and are applied in the cavity to relieve toothache.
Psidium guajava bayabas	Cough, colds, LBM, wounds, menstruation	Decoction is used as oral tonic water for cough and colds. It is use to regulate the flow of blood during menstruation. It is use for washing wounds.

Conclusions

Based from the study conducted, the following are the conclusions:

- A total of one hundred ninety (190) medicinal plant species belonging to sixty-nine (69) families were identified.
- The top five commonly used medicinal plants are *Blumea balsamifera* (Linn.) DC (Lakad bulan) (57.22%), *Coleus aromaticus* Benth. (Oregano) (45.00%), *Vitex negundo* Linn. (Lagundi) (27.78%),
- Residents of both urban and rural areas were noted to be dependent on using medicinal plants in treating common ailments such as colds, body pain and rheumatism.

   All plant parts are used as medicine to cure colds, cough, fever, stomach ache and other minor illnesses.
   Most of these plants are being cultivated not only for medical purposes but also as ornamental as well as a food source.

Recommendations

The following are recommended:

- It is recommended that traditional medicine campaign be conducted to the local barangays to increase the awareness of the folks as to the proper use and the dose of the plant being used as herbal medicine.
- The local barangays may put up medicinal gardens so that this indigenous knowledge will be handed-over to the future generations.
- In- depth researches may also be conducted; especially to some commonly used medicinal plants with few scientific evidences of its medicinal value.
- Active components of these medicinal plants may also be identified in order to establish its usefulness and validate the safety and efficacy of the herbal remedies.

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Private Public Partnership in Tourism Development of Nueva Ecija

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ABSTRACT

This study is focused on the description and analysis of the partnership of public and private sectors for tourism development in Nueva Ecija. It described the different numerous tourism destinations in the province based on the six tourism product classifications of the Department of Tourism such as natural, cultural, leisure and entertainment, MICE and events tourism, education and agricultural tourism destinations. It also determined the respondents' profile from the local government units, the national and local government initiatives pertaining to tourism, the development directions of the localities concerned, and the administrative capability of the tourism officers and the tourism development councils. However, the findings showed that there are only few local policies passed by the Sanggunian in each locality and only few tourism officers have plantilla or permanent position as tourism officer and majority have multi-tasks in different cities and municipalities in Nueva Ecija which affect their level of performance. The research also assessed the respondents' profile from the private sectors, their participation, investments and suggestions to improve tourism in the province. Private sector provides great impact in the locality, however, they are not consulted by the public sector during the tourism development planning and they strongly need full support of government. Finally, the researcher proposed a tourism program for Nueva Ecija to make it an engine of growth and development.

Keywords: tourism destination, partnership, private sector, public, development

Introduction

"It is more fun in the Philippines," a slogan created by the Department of Tourism aims to encourage tourists to visit this country. Tourism in the Philippines plays a major role in the national economy. Based on the statistics from the Department of Tourism, tourist arrivals from 2008 to 2012 increased every year and last year record reached the highest growth of 4.3 million foreign visitors.

Nueva Ecija, one of the oldest provinces in the Philippines, is known as the Rice Granary of the Philippines. It is a completely landlocked province in the Central Luzon covering five (5) cities and 27 municipalities. The province has a rich history and culture for it once became a seat of Philippine Government and became mother of several heroes who fought for the independence of the country. Aside from the green meadows that turn gold during the harvest season, Nueva Ecija has many tourist destinations which need to be discovered and explored. The elements of the past, the natural resources and the existing built heritages are some of the places that will provide interesting facts to the tourists.

At present, the province is not highly recognized and appreciated as one of the tourist destinations in the Philippines. Tourists who visit Nueva Ecija are not aware of the historical landmarks, scenic spots, and other attractions that the province can offer. The provincial government through the Provincial Tourism Council or Provincial Tourism Office and the Local Tourism Councils and Action Groups of component cities and municipalities enlisted different types of tourism sites such as eco-tourism destination, farm-tourism destination, and cultural destination. However, the tourism industry is still lagged behind in terms of productivity despite the tourism potential of the province.

The local government, in partnership with the private sector, makes gradual efforts to address this issue. There are tourism-related projects, primarily on the improvement of parks and eco-tourism areas within the province, the provision of adequate and attractive tourism facilities to promote domestic tourism, and improvement in duration and scale of local festivities comparable to the country's more famous festivals.

The provincial goal is to enhance the capability and productivity of the local tourism industry, and its potentials for local government employment

generation, through the development of the province inherent natural endowments and preservation of its historic-cultural heritage while maximizing the province's status as a national center for agricultural research and extension services.

Given this context, the purpose of the research is to assess the local government initiatives on tourism development in Nueva Ecija particularly on the potential tourist destinations that will compete in the market and will be the means of developing the province's tourism industry. This is achieved by undertaking a content analysis of existing local tourism policies and programs pertaining to tourism in Nueva Ecija. This study provides insights into the local government's role in facilitating the policies and programs for tourism development.

Statement of the Problems

The study aimed at determining the public-private partnership in tourism development of Nueva Ecija.

Specifically, the study attempted to do the following:

1. Describe the tourist destinations in Nueva Ecija based on the six tourism classifications such as: nature tourism, cultural tourism, leisure and entertainment tourism, meetings, incentives, conventions and exhibits (MICE) and events tourism, education tourism, and agricultural tourism.

2. Describe/Present the Local Government Units' (LGUs) tourism development initiatives in terms of:

    2.1 Profile of the respondents;

    2.2 Tourism Policies;

    2.3 Development Directions; and

    2.4 Administrative Capability.

3. Describe/Present the involvement of the private sector on tourism in terms of:

    3.1 Profile of respondents;

    3.2 Participation;

    3.3 Investment; and

    3.4 Suggestions to sustain tourism program in the province.

4. Propose a Program of Development for Tourism Industry in Nueva Ecija to make it an engine of growth of the local economy.

Methodology

The study is basically a qualitative research. Qualitative research is based on evidence such as verbal testimony, written reports and audio or visual images which may be collected in the form of loosely structured interviews. The descriptive and historical methods of research were employed in obtaining information needed for this study.

Nueva Ecija has quite a number of tourist destinations. Since this study is concerned on the private-public partnership on tourism development in Nueva Ecija, this study considered two sets of respondents. Mayor, vice mayor, chair of tourism committee, tourism officer, planning and development coordinator and punong barangay represented LGUs while hospitality industry owners, managers or employees (restaurant, hotel and resort), transport groups, souvenir shop owners, managers or employees, novelty item makers and others consisted the private sector.

Findings

1. Tourism Destinations in Nueva Ecija

The numerous tourism destinations in Nueva Ecija cover nature, cultural, leisure and entertainment, MICE and events, education, and agricultural tourism.

The different nature tourism destinations in Nueva Ecija are: Minalungao National Park, NEUST Eco-Park, Diamond Park or Tayabo National Park, Fort Magsaysay Lake (Pahingahan Lake), Aetas' Resettlement Area at Sitio Bacao and Kalikasan Falls, Dupinga River, Jordan River, Pantabangan Dam, and Aulo Dam.

Nueva Ecija's cultural tourisms include Taong Putik Festival in Bibiclat, Aliaga, Ragragsak Ti Guimba Festival in Guimba, Kariton Festival in Licab, Gatas ng Kalabaw Festival in Talavera, Kapagayan Festival in Llanera, Pandawan Festival in Pantabangan, Pagibang Damara Festival in San Jose City, Sibuyasan Festival in Bongabon, Araw ng Cabanatuan/Longganisa Festival in Cabanatuan City, Gintong Ani Festival in Cabanatuan City, Nueva Ecija, Gulayan Festival in Gabaldon, Pastores Festival and Tsinelas Festival in Gapan City, Araquio Festival in Penaranda, Uhay Festival in Science City of Munoz, and Mais Festival in NEUST, Cabanatuan City.

The old Churches in Nueva Ecija with historic and religious significance are Three Kings Parish Church in Gapan City and Saint Francis of Assisi Church in Penaranda.

Shrines are historic sites hallowed and honored for their history or association. Nueva Ecija has Aquino-Diokno Memorial Shrine in Palayan City, Gen. Luna Marker in Plaza Lucero, and Camp Pangatian Shrine, Cabanatuan City.

Leisure and entertainment tourism involves key components such as: arts and entertainment, sports and physical recreation, visitors' attraction, catering, home-based leisure, children's play activities and countryside recreation. Leisure and entertainment tourism destinations in Nueva Ecija are amusement park, shopping centers, and resorts.

Meetings, Incentives, Conventions and Exhibits (MICE) include facilities for assembly of people like convention center, exhibition hall, gallery, museum and the like. The tourism establishments included in the list of exhibition hall and museum are Museong Lazaro Francisco and Museo Novo Ecijano, which are both historically and culturally significant. The Nueva Ecija Convention Center is the only one in its kind in the province. Some famous hotels and restaurants in the province are, Microtel Inn and Suites, La Parilla Hotel, Royal Crest Hotel, Sierra Madre Suites, Plaza Leticia, Hap Chan Restaurant, Edna's Cakeland, Rustica, Hapag Vicentico's and others.

Education tourism includes student- exchange programs and study tours. These are universities that impart knowledge through teaching and learning where course offerings are extended to people regardless of sex, nationality, race and culture. The education tourism destinations in Nueva Ecija are: Central Luzon State University (CLSU) in Science City of Munoz, Nueva Ecija University of Science and Technology (NEUST), Wesleyan University -Philippines (WU-P), and Araullo University (AU) in Cabanatuan City.

Agricultural tourism involves travel to a farm or ranch, including farm stays at anything from bed to breakfasts to dude ranches, produce purchase from farm stands, corn mazes, wine and cheese making, and fruit picking.

The agri-tourism destinations in the province are: Philippine Rice Research Institute (Philrice), Bureau of Post Harvest Research and Extension (BPRE), Philippine Center for Postharvest Development and Mechanization (PhilMech), Philippine-Sino Center for Agricultural Technology (PhilSCAT), Nueva Ecija Fruit and Vegetable Seeds Center (NEFVSC), Philippine Carabao Center (PCC), Milka Krem, DVF Dairy

Farm and Plant, and Bureau of Fisheries Aquatic Resources – National Freshwater Fisheries Technology Research Center (BFAR-NFFTRC).

The study revealed that Nueva Ecija has a total of 8 nature tourism, 24 cultural tourism, 15 entertainment and leisure tourism, 9 MICE and events tourism, 4 education tourism, and 8 agricultural tourism. There is a total of 69 tourist destinations described by the researcher in this study.

2. Local Government Units (LGUs) tourism development initiatives

The Local Government Units (LGUs) of Nueva Ecija have tourism development initiatives in their respective city or municipality, although tourism is not the priority of the province.

Fifty respondents from the public sector are officials who have direct connection with the planning and implementation of tourism in the city or municipality. This sector is consisted by mayor, vice mayor, Sangguniang Bayan or Panlungsod Chairman of Tourism Committee, Tourism Officer, Planning Coordinator and Punong Barangay.

Tourism policies are programs of actions in tourism adopted by the national and local government. The national policies are in the form of laws, executive orders and proclamation while the local policies include Sangguniang Bayan or Sangguniang Panlungsod resolutions, city or municipal ordinances and executive orders.

Nueva Ecija in particular adopts some national policies through the initiative of different cities and municipalities such as: Republic Act No. 9593 or Philippine Tourism Act of 2009 or an act declaring a national policy for tourism as an engine of investment, employment, growth and national development, and strengthening the Department of Tourism and its attached agencies to effectively and efficiently implement that policy, and appropriating funds therefore; Proclamation No. 188, s.1993 or the declaration of the adoption of 20-year Philippine Tourism Master Plan (TMP) as the government's blueprint for tourism development which mobilizes all government agencies and the private sector to support and implement the TMP; Philippine National Tourism Development Plan, 2011-2016, which is a road map to guide

national and local government on tourism development; Local Government Code of 1991 Chapter 2, Book 1 Section 16 which describes the general welfare of the local government related to tourism; Philippine Constitution of 1987, Section 14-16, which involves preservation and enrichment of the arts and culture; and Executive Order No. 29, s. 2011 that authorizes the Civil Aeronautics Board (CAB) and the Philippine Air Panels to pursue more aggressively the International Civil Aviation Liberation Policy. However, few local ordinances on tourism and tourism-related projects are approved by the Sangguniang Bayan and Sangguniang Panlungsod in different cities/municipalities. Of the 16 respondents, six Local Government Units have no tourism policies stated.

The development direction of the different cities and municipalities in Nueva Ecija is geared towards success. Tourism is one of the concerns of the local government to achieve the goal of sustainable and economic development. Based from the gathered data, tourism development projects, plans and programs are incorporated in the Annual Investment Plan of the Local Government Unit for 2013 and 2014. The sources of budget for the projects are taken from the 20% of development funds of Internal Revenue Allotment (IRA) of the Local Government Unit (LGU).

The study reflected weaknesses of the tourism aspect in Nueva Ecija. The need to provide additional projects and programs for the tourism development of each town is necessary to make Nueva Ecija a tourism destination. The budget for tourism promotions and activities need a separate allocation from the 20% development fund. Linkages with the private sectors may be utilized to improve the tourism spots and tourism related establishments in Nueva Ecija.

Administrative capability deals with the affectivity and efficiency of the person to handle a certain position in the government. It involves high performance in doing the duties and responsibilities assigned by the authority, technical know-how and qualifications fit to do the job. It involves ability or the qualities that are necessary to administer the tourism department in the local government.

Each city or municipality is mandated to provide a tourism officer based on the RA 9593. However, not all local government units created and provided a permanent position for the item. Few local government units in Nueva Ecija adhere to this mandate, such as San Jose City, Guimba, Palayan City, Pantabangan and Science City of Munoz. Many municipalities and cities designated personnel who have other permanent position and job description to act as tourism officer.

Tourism Development Council is a group of people involving 60% non-government sector and forty 40% government sector who are tasked to do the Local Tourism Development Plan of the locality. The establishment of the Tourism Council is also a part of the mandate of the Department of Tourism to each city or municipality but there are only two cities and three municipalities which have Tourism Development Council.

3. Involvement of the Private Sector on Tourism

Private sector is the part of a free market economy that is made up of companies and organizations that are not owned or controlled by the government. It plays a big role in the development of tourism in one place. This sector is recognized as partner of the local government in the planning and implementation of the tourism projects.

The private sectors involved in tourism industry are tourism-related establishments such as hotels, restaurants and resorts. They participate in the tourism growth of Nueva Ecija by providing quality services to guarantee the satisfaction, happiness and pleasure of the tourists.

Tourism-related establishments in Nueva Ecija provide clean, safe and comfortable accommodations to the guests, delicious foods, quality products, wide selection of facilities for enjoyment and relaxation, hospitable and friendly employees and hospitable, friendly and warm residents/neighbourhood.

However, there is no tourism package available for tourists. Tourism information, flyers and brochures are available only in accredited tourist destinations like La Parilla Hotel, Microtel Inn and Suites, Dream Water Fun and Resort, and Crystal Waves Hotel and Resort. Government Owned and Control Corporations and other attached government agencies also provide leaflets, newsletters or other reading materials to the tourists.

Investment of private sectors entails spending on capital goods and is undertaken by companies and organizations that are not owned or controlled by the government sector. The capital goods include new facilities, new amenities, additional financial capital, human resources and others.

The study revealed that hotels and resorts are affected by peak and low seasons. Investments during peak season include additional financial capital, new

amenities and facilities and hiring of additional human resources. During low season, resorts are not fully operational and less employees are retained. For restaurants, investments are focused on new equipment particularly in the kitchen, new menus and recipes and services. The biggest investments of tourism-related establishments are focused in new facilities and amenities to attract tourists. Financial capital varies from less than one million to more than 20 million.

Private sector has different suggestions to sustain tourism program in Nueva Ecija such as:

- Development of more activities related to tourism industry to sustain the interest of the tourists;

- Provision of incentives for business sectors and other tourism related establishments;

- Minimal process of accreditation of tourism-related establishments and application of business permits and licenses;

- Awareness of people in the protection and preservation of the historical places in the province;

- Improvement of transport services and provision of concreted road network;

- Improvement of marketing and promotion of tourism destinations in Nueva Ecija;

- Provision of tourism mapping to identify the tourism destinations of the province;

- Regular monitoring and evaluation of different tourist spots by tourism officer;

- Coordination of different government agencies like police, health, public works, trade and industry and tourism with private sector;

- Active participation of private sectors in the municipality or city Tourism Development Council.

4. Proposed Program of Development for Tourism Industry in Nueva Ecija to make it an engine of growth of the local economy.

The proposed program of development for tourism industry in Nueva Ecija involves the following:

- Participation of private sectors and non-

government organizations in tourism development;

- Conduct of seminars, fora, symposia, workshops and training regarding tourism;

- Promotion of tourism destinations of Nueva Ecija by means of tour package;

- Promotion of festivals;

- Creation of Local Tourism Development Plan designed by Tourism Development Council;

- Promotional and Marketing materials development for tourism industry;

- Regular inspection and assessment of all tourism activities and establishments;

- Creation of Tourism Officer Plantilla and designation of Tourism Officer;

- Intensification of agri-tourism in the province;

- Establishment of Visitors Information Desk or Tourists Information Service in key areas;

- Development of declared and potential tourist destinations of Nueva Ecija; and

- Intensification of public-private partnership on tourism.

CONCLUSIONS

Based on the findings, the following conclusions were derived:
1. Tourism destinations in Nueva Ecija are numerous but they are lacking promotion and marketing. They are classified as nature tourism, cultural tourism, leisure and entertainment tourism, MICE and events tourism, education tourism, agricultural tourism and medical tourism;
2. Local Government Units have tourism development initiatives, however, these are not the priority of the public sector. There are only few local policies passed by the Sanggunian in each locality. Not all cities and municipalities adopted the national policies on tourism;
3. Plans, programs, projects and activities regarding tourism are limited and usually, projects are only

support to tourism. The budget allocations for tourism projects and activities from the local government are small that resulted to lack of proper implementation;

4. In administrative capability, only few tourism officers have plantilla or permanent position as tourism officer and majority have multi-tasks in different cities and municipalities in Nueva Ecija which affect their level of performance;

5. Tourism Councils are not active and the local government has not given them opportunity to work and perform their duties and responsibilities well;

6. Private sector involvement and participation in tourism development provides great impact in the locality, however, they are not consulted by the public sector during the tourism development planning and the support of government in terms of promotion is badly needed;

7. Private sectors are affected by peak and lean season which results in financial loss of the tourism-related establishments;

8. Private sector addressed different suggestions to the government that can help in developing the partnership between the private and public sectors towards the achievement of the goal in tourism; and

9. The proposed program of development for tourism industry in Nueva Ecija can be a great help to improve tourism industry in the province.

RECOMMENDATIONS

Based on the results of the study, the researcher recommends the following:

- Tourism destinations in Nueva Ecija may be improved and provided with support facilities and amenities that can attract tourists to stay longer. Nueva Ecija may enhance the agricultural tourism not only in Science City of Munoz but also in different towns and cities;

- Local Government Units are encouraged to pass more local policies that will support tourism development in the locality. Festival celebration of each town may be supported by local ordinance so that changes of local officials do not affect the event;

- Each city/municipality may be encouraged to make plans, programs, projects and activities regarding tourism and provide separate budget allocations;

- Every city/town may be provided with permanent tourism officer who are highly qualified for the position;

- Tourism Councils may be established in every town and city of Nueva Ecija and be encouraged to become active in different tourism activities;

- Private sectors in every town/city of Nueva Ecija are encouraged to establish an organization for all tourism-related establishments (TREs). Tourist destinations may be given promotion and marketing through tour package, signage, mass media, print ads and webs by Local Government Units;

- Tourism-related establishments (TREs) may be tapped by the local government and other agencies as linkage for different activities like tours, rest and recreation and others;

- Different suggestions of private sector addressed to the local government to improve tourism in the province may be considered and given emphasis by the public sector; and

- The proposed program of development for tourism industry in Nueva Ecija may be looked into by the provincial tourism office for proper action and implementation.

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FACTORS INFLUENCING ENGLISH PROFICIENCY AMONG BACHELOR OF SCIENCE IN INDUSTRIAL TECHNOLOGY STUDENTS

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This study determined the English Proficiency and the factors influencing the proficiency of the Bachelor of Science in Industrial Technology (BSIT) students of CHMSC for AY 2014-2015; the significant difference and relationship between the factors influencing English proficiency and the level of English proficiency of the BSIT students as a whole and grouped according to technology enrolled in.

The participants of this study were the 144 BSIT students.

The Factors Influencing English Proficiency Descriptive Questionnaire was used as instrument. The means and standard, One- Way Analysis of Variance and Pearson Product Moment Coefficient of correlations were used as statistical tools.

English Proficiency was based from the result of the entrance examination.

The study revealed that factors influencing English Proficiency such as English teachers, the subject itself, learning strategies and outside learning activities of the BSIT students when taken as a whole and grouped according to Technology enrolled in was "High" and personal factors was "Very High", English proficiency of the BSIT students was "Below Average"; English proficiency and the factors influencing it were significantly related to technology enrolled in and the factors influencing English proficiency was significantly related to English Proficiency.

As recommendation, the administration designs program that enhances valuing and putting interest on English subjects. "Average" English proficiency in entrance test should be required in admitting students. English proficiency must be given much emphasis in the curriculum; further research should be done by taking into considerations other variables like different exposure to mass media and learning styles

Keywords: *Factors Influencing English Proficiency, Levels of English Proficiency, Bachelor of Science in Industrial Technology Students,*

Introduction

Background of the Study

Philippine education system has been using English as a medium of instruction form elementary to university level for decades has also reinforced the notion that English is easy – even a child can do it- and available. It is a tool for learning and a medium of communication. More than this, English is the language of power and progress. In the Philippines, it is highly valued not only because it is functional and practical and washes over us constantly but more importantly because it is an affordable item, a skill that can be used to increase one's position, respectability and marketability. In most cases, the better one's ability to understand and use English the better one's chances of career advancement.

In fact, now, more than ever, English is important to the Filipino masses seeking employment abroad. The Filipino's skill and cheap labor are in demand, yes, but so is their command and comprehension of English which makes it easy for foreign employers to tell them what to do. English, after all, is a global language and luckily- some say unluckily – Filipinos managed to unravel this code quite early and easily.

Yes, it was used to be that the Philippines' biggest competitive advantage in the global job market is the proficiency of our skilled workers in the English language. This advantage, however, is fast being eroded by rising competition from other countries coupled with declining mastery of the English language by our college graduates.

Recent language test results released by the IDP Education Pty. Ltd. Philippines, an accredited group that administers the International English Language Testing System (IELTS) to Filipinos seeking to work and migrate abroad, showed that the Philippines is no longer the top English-speaking country in Asia.

With an overall score of 6.71, Malaysia is now the No. 1 in English proficiency in Asia. The

Philippines placed only second with 6.69, followed by Indonesia (5.99), India (5.79) and Thailand (5.71). This was gleaned from IELTS results in 2008, during which some 35,000 Filipinos — 70 percent of them nursing graduates applying for jobs abroad — took the language exam to evaluate their English proficiency in reading, writing, speaking and listening.

During a conference on English organized by the Centre for International Education (CIE) in Manila, Andrew King, country director of IDP Education Pty. Ltd. Philippines warned that the continuous decline in Filipinos' English proficiency could affect the growth of the call center industry which provides thousands of jobs at home and abroad.

In an interview with *Planet Philippines*, King stressed that English remains the *lingua franca* or default language of international business and diplomacy.

"Things like international treaties, business contracts and so on, are written in English, because it's an exact language," he says. "You have to have people that can speak, read and write it well. To operate at high levels, you need very good English."

He states that employers in today's global market want people that have not only international experience and good qualifications that are recognized all over the world but also high proficiency in spoken and written English. "English has less elasticity and flexibility so you can say exactly what you want to say and not argue about the meaning. If you get your tenses, plurals and prepositions wrong, then you're not going to be accurate."

He adds: "Here and around the world, people are asking for better competency in English. Being able to get by is not enough."

King says proficiency in English is a huge advantage for every job seeker, even those who have no plans of working overseas. Foreign companies in the Business Process Outsourcing (BPO) sector, he notes, locally administer their contracts in English. "A foreign company won't enter into a contract that's not of their language." *http://planetphilippines.com/current-affairs/english-proficiency-is-key-to-landing-a-job/#sthash.Fjt00AuQ.dpuf*

It could also be noted that in the list published by the Education First: World Leader in the International Education in 2014 regarding the Top 60 countries with a high English Proficiency, Philippines is not included.

It is in this light that the researcher is necessitated to conduct a study on the factors influencing English proficiency among Bachelor of Science in Industrial Technology students major in Architectural Drafting, Food Trades, Computer, Mechanical, Automotive, Electronics and Electrical Technology.

Statement of the Problem

The purpose of the study is to determine the factors influencing the English proficiency of the Bachelor of Science in Industrial Technology (BSIT) students of CHMSC- Alijis Campus for AY 2014-2015.

Specifically, it would like to answer the following:

What are the factors influencing English proficiency of the Bachelor of Science in Industrial Technology (BSIT) students when taken as a whole and grouped according to technology enrolled in?

What in the level of English proficiency of the Bachelor of Science in Industrial Technology (BSIT) students when taken as a whole and grouped according to technology enrolled in?

Is there a significant difference between the factors influencing English proficiency of the Bachelor of Science in Industrial Technology (BSIT) students and technology enrolled in?

Is there a significant difference between the level of English proficiency of the Bachelor of Science in Industrial Technology (BSIT) students and technology enrolled in?

Is there a significant relationship between the factors influencing English proficiency of the Bachelor of Science in Industrial Technology (BSIT) students and technology enrolled in?

Is there a significant relationship between the level of English proficiency of the Bachelor of Science in Industrial Technology (BSIT) students and technology enrolled in?

Is there a significant relationship between the factors influencing English proficiency and the level of English proficiency of the Bachelor of Science in Industrial Technology (BSIT) students?

Methodology

Method of Research Used

The descriptive method of research was used in this study. Descriptive research is a design which aims to describe the nature of a situation as it exists at the time of the study and to explore the causes of particular phenomena (Gay, 1997).

Stratified random sampling was employed in the selection of the participants.

Respondents of the Study

The participants of this study were the 144 second year students of the Bachelor of Science in Industrial Technology (BSIT) major in Electrical, Electronics, Architectural Drafting, Computer, Automotive, and Mechanical Technology for Academic Year 2014- 2015.

Distribution of the Bachelor of Science in Industrial Technology Students

Category	f	%
Entire Group	144	100
Automotive Tech	21	14.6%
Computer Tech	29	47.2%
Arch Draft Tech	10	6.9%
Electrical Tech	18	12.5%
Electronics Tech	15	10.4%
Mechanical Tech	15	10.4%
Foods Trade Tech	36	25.0%

Research Instrument Used

There was one research instrument utilized in this study. This was the Factors Influencing English Proficiency Descriptive Questionnaire. The items from the said questionnaire was modified from the questionnaire used by Rany (2013) in his study on the Factors Causes Low Language Learning: A Case Study in the National University of Laos.

To establish the validity of the instruments, a panel of five jurors who were experts in this field validated the content of the questionnaire. This was evaluated using the criteria developed for the evaluation of survey questionnaires set forth by Carter V. Good and Douglas B. Scates. The final draft of the questionnaire was prepared after considering the juror's corrections and suggestions for improvement.

The statistical tool used to determine the reliability and the interval consistency of the instrument was the alpha coefficient known as Cronbach Alpha. The questionnaire was pilot tested and the result of the pilot administration was subjected to reliability test using the Statistical Package for Social Sciences (SPSS) Software. The obtained reliability coefficient Cronbach Alpha was 0.83 for the Rating Scale on Factors Influencing English Proficiency Descriptive Questionnaire.

The data pertaining to the level English Proficiency of the participants were based from the result of the entrance examination on English Proficiency. This was provided by the Guidance Office. The level of English Proficiency was then determined by the use of Stanines.

The means and standard deviation was employed as descriptive statistics while One-Way Analysis of Variance and Pearson Product Moment Coefficient of correlations were used as inferential statistics.

Summary of Findings

The major findings of the study were as follows:

1. As an entire group the factors influencing English Proficiency such as English teachers, the subject itself, learning strategies and outside learning activities of the Bachelor of Science in Industrial Technology when taken as a whole and grouped according to Technology enrolled in were perceived to be "Highly Influential". However, personal factors were perceived to be "Very Highly Influential".

2. As an entire group the level of English proficiency of the Bachelor of Science in Industrial Technology when taken as a whole and grouped according to Technology enrolled in was "Below Average".

3. The factors influencing English proficiency such as teacher factor, subjects itself and personal factors did not significantly differ to technology enrolled in. However, there was a significant difference between Automotive technology students and learning strategies and Food Trades

The Level of English Proficiency of the Bachelor of Science in Industrial Technology (BSIT) Students

Categories	Mean	SD	Interpretation
Entire Grp	2.17	.86	Below Ave
Auto Tech	2.33	.65	Below Ave
Comp Tech	2.17	.75	Below Ave
Arch Draft	2.80	.91	Below Ave
Electrical	2.00	.76	Below Ave
Electronic	1.66	.72	Below Ave
Mech Tech	2.00	1.06	Below Ave
Food Trades	2.27	.72	Below Ave

technology students and outside class learning activities.

4. English proficiency significantly differs to technology enrolled in.

Differences between the Level English Proficiency and Technology Enrolled In of BSIT Students (ANOVA)

Level of EP	Sum of^2	df	Mean^2	F	Sig
Bet Gr	9.7	6	1.617	2.284	.039
W/in Gr	96.96	137	.708		
Total	106.66	143			

5. The factors influencing English proficiency was significantly related to technology enrolled in.

Results for the Relationship between Factors Influencing English Proficiency and Technology Enrolled In (Pearson's r Test)

	Technology Enrolled In	Factors Influencing English Proficiency
Technology Enrolled In Pearson Correlation Sig. (2-tailed) N	1 144	.164 .049** 144
Factors Influencing English Proficiency Pearson Correlation Sig. (2-tailed) N	.164 .049** 144	1 144

Correlation is significant at the 0.05 level (2-tailed)

6. The factors influencing English proficiency was significantly related to English Proficiency.

Results for the Relationship between Factors Influencing English Proficiency and the Level of English Proficiency (Pearson's r Test)

	Factors Influencing Eng. Prof	English Proficiency
Factors Influencing English Proficiency Pearson Correlation Sig. (2-tailed) N	1 144	-.005 .948 144
English Proficiency Pearson Correlation Sig. (2-tailed) N	-.005 .948 144	1 144

Correlation is significant at the 0.05 level (2-tailed)

Conclusions

In view of the findings, the following conclusions were drawn:

1. It is perceived that the factors influencing English Proficiency of the Bachelor of Science in Industrial Technology students such as English teachers, the subject itself, learning strategies and outside learning activities are "Highly Influential". However, in a higher degree of influence are the personal factors which were perceived to be "Very Highly Influential".

2. It is revealed that the English proficiency of the Bachelor of Science in Industrial Technology students was "Below Average".

3. There was no significant difference between the factors influencing English proficiency such as teacher factor, subjects itself and personal factors to technology enrolled in. On the other hand a significant difference exists between Automotive technology students and learning strategies. Likewise, with Food Trades technology students and outside class learning activities.

4. A significant difference exists between the English proficiency of the Bachelor of Science in Industrial Technology students and technology enrolled in.

5. There is a significant relationship between factors influencing English proficiency of the Bachelor of Science in Industrial Technology students with the technology enrolled in.

6. There exists a significant relationship between factors influencing English proficiency of the Bachelor of Science in Industrial Technology students and English Proficiency.

Recommendations

In view of the findings and conclusions of the study, the following are recommended:

1. The attitude of students towards learning the subject was "Very Highly Influential". The administration of Carlos Hilado Memorial State College, specifically, the School of Arts and Sciences with the help of all faculty handling English subjects must design a program that will motivate students to value and put interest to English subjects.

2. English proficiency must be a mandatory requirement to all government scholars like as the students enrolled in Carlos Hilado Memorial State College. The college must only admit students who have at least "Average" in their English proficiency entrance test.

3. English proficiency must be given much emphasis in the curriculum. Curriculum planners and curriculum review committee must see to it that it must be integrated in all subjects offering that only in English subjects.

4. English teachers of Carlos Hilado Memorial State College as one of the factors influencing English proficiency of the students must be given equal

opportunity to attend to seminars and trainings pertaining to their field for them to keep abreast with the rapid changes happening in the education arena.

5. The present study focused only on the factors influencing English proficiency. It is recommended that further research should be done by taking into considerations other variables like different exposure to mass media and learning styles.

6. The present study focused on the English proficiency of the students which was as an entire group rated to be "below average". I is recommended therefore, that factors causing low English proficiency must be identified to address this concern.

7. The result of this study must be submitted to the Department of Education for them to be aware of the graduates that they are producing in terms of English proficiency so that proper, immediate and mandatory actions and plan will be implemented.

8. Faculty researchers of the other three campuses of Carlos Hilado Memorial State College are also encouraged to conduct the same study in their respective campuses.

9. Since "factors influencing English proficiency" is significantly related to the level of English proficiency, there is a must seriously design and implement intensive English Program considering these influential factors of the English proficiency.

10. Other researches could replicate, confirm, disprove or expand this study by making deeper analysis of the variables being studied.

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THE ON- THE – JOB TRAINING PERFORMANCE AND COMMUNICATION COMPETENCE OF THE BACHELOR OF SCIENCE IN INDUSTRIAL TECHNOLOGY STUDENTS OF CARLOS HILADO MEMORIAL STATE COLLEGE

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This study determined, through the perceptions of the On-the-Job Trainees themselves and their supervisors the on-the-Job Training performance as a whole and in terms of job knowledge, practical skills, and work attitude when grouped according to technology course enrolled in, the communication competence as a whole and when grouped according to technology course enrolled in, significant difference in the OJT performance as a whole and in terms of job knowledge, practical skills, and work attitude when grouped according to technology course enrolled in and significant difference in the communication competence as a whole and when grouped according to technology course enrolled in.

The participants of this study were 88 graduating students of BSIT Program. The descriptive method of research was used in this study. Stratified random sampling was employed in the selection of the student-participants and purposive sampling for the OJT Supervisors. This study utilized validated and reliability tested OJT and the Communication Competence Descriptive Questionnaires.

One-Way-Analysis of Variance was used as inferential statistics.

The study revealed that students perceive OJT performance as "Excellent", and "Very Satisfactory" as perceived by the OJT supervisors; both students and supervisors perceive communication competence as "Very Satisfactory; both students and supervisors perceive OJT performance in terms of Practical Skills differ significantly to Technology enrolled in. Communication competence as perceived by both students and supervisors differ significantly to technology enrolled in.

Personality development courses is recommended to be introduced, topics on communication skills enhanced and Curriculum given more emphasis on modeling effective communications exercises

Keywords: On-the-Job Training Performance, Communication Competence, Bachelor of Science in Industrial Technology Students

Introduction

Background of the Study

The Bachelor of Science in Industrial Technology program aims to develop a world-class industrial workers and middle managers equipped with scientific knowledge, technological skills and ethical work values to achieve a desirable quality of life and produce quality industrial graduates to meet the demands of the society (CHMSC, 2012). To address the aforementioned objectives of the Bachelor of Science in Industrial Technology of Carlos Hilado Memorial State College, the students on their third year are being sent to the On-the-job training, also known as OJT. It aims to teach the skills, knowledge, and attitudes that are needed to perform a specific job within the workplace and work environment. On-the-job training uses the regular or existing workplace tools, machines, documents, equipment, knowledge and skills necessary for an employee to learn to effectively perform his or her job.

It occurs within the normal working environment an employee will experience on the job. It may occur as the employee performs actual work or it may occur elsewhere within the workplace using training rooms, training work stations, or training equipment. It is the most frequently supplied by another employee who can competently perform the job that he or she is teaching. It is occasionally performed by an external provider as in the case of specialized equipment. In another example, a vendor trains a marketing system a group of employees is adapting to their own work procedures. It is normally the most effective approach to training employees.

Moreover, many people believed that effective communication is the most important key to success in their work and in their relationship (Weaver, 2001). Everyone needs good communication skills. Effective communication helps bring

success and pleasure, helps change the way others act and behave and helps in maintaining and improving relationships. Communication is an on-going process in which people share ideas and feelings.

Indeed the ability to communicate will help the future graduates, specifically those who are undergoing the on-the-job training have the chance to be employed not only in the local arena but in international as well.

With the growing concern to assess the communication competence and the on -the – Job Training Performance of the Bachelor of Science in Industrial Technology students, hence, the study is conducted.

Statement of the Problem

The purpose of the study is to determine the on-the-job training performance and the communication competence of the Bachelor of Science in Industrial Technology (BSIT) students of CHMSC- Alijis Campus for AY 2014-2015.

Specifically, it seeks to answer the following problems:
1. What is the level of On-the-Job Training performance as a whole and in terms of (a) cognitive or job knowledge; (b) psychomotor or practical skills, and (c) affective or work attitude of the Bachelor of Science in Industrial (BSIT) students when grouped according to technology course enrolled in as perceived by themselves and their OJT supervisors?
2. What is the communication competence of the Bachelor of Science in Industrial (BSIT) students as a whole and when grouped according to technology course enrolled in as perceived by themselves and their OJT supervisors?

3. Is there a significant difference in the On-the-Job Training performance as a whole and in terms of (a) cognitive or job knowledge; (b) psychomotor or practical skills, and (c) affective or work attitude of the Bachelor of Science in Industrial (BSIT) students when grouped according to technology course enrolled in as perceived by themselves and their OJT supervisors?

4. Is there a significant difference in the communication competence of the Bachelor of Science in Industrial (BSIT) students as a whole and when grouped according to technology course enrolled in as perceived by themselves and their OJT supervisors?

Methodology

The descriptive method of research was used in this study. Descriptive research is a design which aims to describe the nature of a situation as it exists at the time of the study and to explore the causes of particular phenomena (Gay, 1997).

Stratified random sampling was employed in the selection of the student – participants while purposive sampling was employed for the supervisor – participant.

Respondents of the Study

The participants of this study are the 88 fourth year students of **the** Bachelor of Science in Industrial Technology (BSIT) major in Electrical, Electronics, Architectural Drafting, Computer Technology, Automotive, and Mechanical Technology and 31 OJT supervisors for Academic Year 2014- 2015. Research Instrument Used

There were two research instruments utilized in this study. These were the On-the-Job Performance Descriptive Questionnaire and the Communication Competence Descriptive Questionnaire.

The On-the-Job Performance Descriptive

Distribution of the On –the- Job Training Students and On – the- Job Training Supervisor

Category	Students		OJT Supervisor
	f	%	f
Entire Group	88	100	31
Automotive Com	7	6%	2
Computer Tech	31	28%	7
Arch Draft Tech	14	12%	7
Electrical Tech	17	15%	4
Electronics Tech	18	16%	5
Mechanical Tech	8	7%	1
Foods Trades Tech	18	16%	4

Questionnaire was modified from the instrument of Guillena (1997). Each major has different questionnaire pertaining OJT performance. The items on this questionnaire were based from their respective course syllabus. The questionnaire consists of 30 items classified into three domains, namely: 10 cognitive or job knowledge, 10 psychomotor or practical skills and 10 affective or work attitude.

On the other hand, Communication Competence Descriptive Questionnaire consisted 20 items. These items were based from 6 criteria for assessing communication competence authored by Canary and

Cody (2000) published in "The Society of Technical Communication", http://www.stc.org. These 6 criteria were adaptability, conversational involvement, conversational management, empathy, effectiveness and appropriateness.

To establish the validity of the instruments, a panel of five jurors who were experts in this field was requested to validate the content of the questionnaires. These were evaluated using the criteria developed for the evaluation of survey questionnaires set forth by Carter V. Good and Douglas B. Scates. The final draft of the questionnaire was prepared after considering the juror's corrections and suggestions for improvement.

The statistical tool used to determine the reliability and the interval consistency of the instrument was the alpha coefficient known as Cronbach Alpha.
The questionnaire was pilot tested and the result of the pilot administration was subjected to reliability test using the Statistical Package for Social Sciences (SPSS) Software. The obtained reliability coefficient Cronbach Alpha was 0.84 for the Rating Scale on On-the-Job Training Performance and 0.82 for the Communication Competence.

The means and standard deviation were employed as descriptive statistics while t – test for the independent samples, One- Way Analysis of Variance was used as inferential statistics.

Summary of the Findings
The major findings of the study were as follows:

1. As an entire grouped, the On-the-Job Performance of the Bachelor of Science in Industrial Technology as perceived by them was "Excellent".

2. As an entire grouped, the On-the-Job Performance of the Bachelor of Science in Industrial Technology as perceived by the OJT supervisor was "Very Satisfactory".

3. As an entire group, Automotive Technology students perceived their OJT performance to be "Excellent". In terms of cognitive or job knowledge and psychomotor or practical skills and affective or work attitude they perceived it to be "Excellent", however, in terms of psychomotor/ practical skills they perceived it to be "Very Satisfactory".

4. As an entire group, the OJT performance of Automotive Technology students as perceived by the OJT supervisors was "Very Satisfactory". In terms of cognitive or job knowledge, psychomotor or practical skills and affective or work attitude, it was perceived to be "Very Satisfactory".

5. As an entire group, Electrical Technology students perceived their OJT performance to be "Very Satisfactory". In terms of cognitive or job knowledge, psychomotor or practical skills and affective or work attitude they perceived it to be "Very Satisfactory".

6. As an entire group, the OJT performance of Electrical Technology students as perceived by the OJT supervisors was "Very Satisfactory". In terms of cognitive or job knowledge, psychomotor or practical skills and affective or work attitude, it was perceived to be "Very Satisfactory".

7. As an entire group, Computer Technology students perceived their OJT performance to be "Very Satisfactory". In terms of cognitive or job knowledge, psychomotor or practical skills and affective or work attitude they perceived it to be "Very Satisfactory".

8. As an entire group, the OJT performance of Computer Technology students as perceived by the OJT supervisors was "Very Satisfactory". In terms of cognitive or job knowledge, psychomotor or practical skills and affective or work attitude, it was perceived to be "Very Satisfactory".

9. As an entire group, Mechanical Technology students perceived their OJT performance to be "Excellent". In terms of cognitive or job knowledge they perceived it to be "Very Satisfactory". However, in terms of psychomotor or practical skills and affective or work attitude they perceived it to be "Excellent".

10. As an entire group, the OJT performance of Mechanical Technology students as perceived by the OJT supervisors was "Very Satisfactory". In terms of cognitive or job knowledge, psychomotor or practical skills and affective or work attitude, it was perceived to be "Very Satisfactory".

11. As an entire group, Architectural Drafting Technology students perceived their OJT performance to be "Excellent". In terms of cognitive or job knowledge they perceived it to be "Excellent". However, in terms of psychomotor or practical skills and affective or work attitude they perceived it to be "Very Satisfactory".

12. As an entire group, the OJT performance of Architectural Drafting Technology students as perceived by the OJT supervisors was "Very Satisfactory". In terms of cognitive or job knowledge, psychomotor or practical skills and affective or work attitude, it was perceived to be "Very Satisfactory".

13. As an entire group, Electronics Technology students perceived their OJT performance to be "Excellent". In terms of cognitive or job knowledge and psychomotor or practical skills

they perceived it to be "Excellent". However, in terms of affective or work attitude they perceived it to be "Very Satisfactory".

14. As an entire group, the OJT performance of Electronics Technology students as perceived by the OJT supervisors was "Very Satisfactory". In terms of cognitive or job knowledge, psychomotor or practical skills and affective or work attitude, it was perceived to be "Very Satisfactory".

15. As an entire group, Food Trades Technology students perceived their OJT performance to be "Excellent". In terms of cognitive or job knowledge and psychomotor / practical skills and affective or work attitude they perceived it to be "Excellent".

16. As an entire group, the OJT performance of Food Trades Technology students as perceived by the OJT supervisors was "Very Satisfactory". In terms of cognitive or job knowledge and affective or work attitude, it was perceived to be "Excellent" while psychomotor or practical skills, it was perceived to be "Very Satisfactory".

17. As an entire group, the communication competence of the Bachelor of Science in Industrial Technology students was "Very Satisfactory".

18. As an entire group, the communication competence of Automotive Technology students was "Excellent". At the same time their communication competence as perceived by them was "Excellent" while the OJT supervisor perceived it to be "Very Satisfactory".

19. As an entire group, the communication competence of the Electrical Technology students was "Excellent". At the same time, communication competence as perceived by them and their OJT supervisor was also "Excellent".

20. As an entire group, the communication competence of the Computer Technology students was "Very Satisfactory". At the same time, communication competence as perceived by them and their OJT supervisor was also "Very Satisfactory".

21. As an entire group, the communication competence of the Mechanical Technology students was "Excellent". At the same time, communication competence as perceived by them and their OJT supervisor was also "Excellent".

22. As an entire group, the communication competence of the Architectural Drafting Technology students was "Excellent". At the same time, communication competence as perceived by them and their OJT supervisor was also "Excellent".

23. As an entire group, the communication competence of the Electronics Technology students was "Excellent". At the same time, communication competence as perceived by them was also "Excellent", while their OJT supervisor perceived it to be "Very Satisfactory".

24. As an entire group, the communication competence of the Food Trades Technology students was "Excellent". At the same time, communication competence as perceived by them and their OJT supervisor was also "Excellent".

25. On-the-Job Training performance of the Bachelor of Science in Industrial Technology as perceived by them in terms of Psychomotor or Practical Skills differ significantly to Technology enrolled in, however Cognitive/ Job knowledge and Affective/ Work Attitude did not differ significantly to Technology enrolled in.

26. On-the-Job Training performance of the Bachelor of Science in Industrial Technology as perceived by the OJT supervisors in terms of Psychomotor or Practical Skills differ significantly to Technology enrolled in, however Cognitive/ Job knowledge and Affective/ Work Attitude did not differ significantly to Technology enrolled in.

27. Communication competence of the Bachelor of Science in Industrial Technology students as perceived by them differ significantly to technology enrolled in.

28. Communication competence of the Bachelor of Science in Industrial Technology students as perceived by the OJT supervisor differ significantly to technology enrolled in.

Conclusions

In view of the findings, the following conclusions were drawn:

1. The On-the-Job training performance of the Bachelor of Science in Industrial Technology students as perceived by the students themselves varies from one technology to another.

2. The On-the-Job training performance of the Bachelor of Science in Industrial Technology students as perceived by the OJT supervisors vary from one technology to another.

3. There were inconsistencies between the perception of the students themselves and their OJT supervisors towards On-the-Job training performance in terms of Cognitive or Job Knowledge, Psychomotor or Practical Skills and Affective or Work Attitude.

4. The communication competence of the Bachelor of Science in Industrial Technology students as perceived by the students themselves varies from one technology to another.
5. The communication competence of the Bachelor of Science in Industrial Technology students as perceived by the OJT supervisors vary from one technology to another.
6. There were inconsistencies between the perception of the students themselves and their OJT supervisors towards communication competence.
7. On-the-Job training performance in terms of Psychomotor or Practical Skills both from the perception of the students themselves and their OJT supervisors significantly differ to technology enrolled in.
8. On-the-Job training performance in terms of Cognitive / Job Knowledge and Affective / Work Attitude both from the perception of the students themselves and their OJT supervisors did not significantly differ to technology enrolled in.
9. Communication competence both from the perception of the students themselves and their OJT supervisors significantly differ to technology enrolled in.

Recommendations

In view of the findings and conclusions of the study, the following are recommended:

1. Personality development courses should be introduced or strengthened in order to boost the self-confidence of the students, particularly those taking the Electrical Technology. It is not enough to have the technical know-how in their field of specializations, it will help a lot if the students are likewise confident enough to communicate this fact to their superiors and peers in order to operationalize and maximize their contribution to their place of work. Team building activities for example can enhance the ability of the future workers for intra-office communication.
2. Equally important to consider is enhancing the topics on communication skills in the development of the curriculum. More practical exercises would help a lot. The exercises can focus on enhancing the listening skills of the students first of all. Skills on encoding and online communication should also be given importance since the world of work is more and more becoming computerized.
3. In order to bridge some gaps between the students' perception of their performance and that of the perception of the supervisors it is recommended that the curriculum should give more emphasis on modeling effective communications exercises.
4. It is recommended that related studies can be conducted. For example it will be interesting to find out the relationship between the communication capability of the OJTs in the workplace and the awards that they have received in school.
5. The present study focused only on on-the-job training performance and communication competence of the Bachelor of Science in Industrial Technology students. It is also recommended to include their scholastic achievements, both in academic subjects and technology courses.
6. The locale of the present study is Alijis Campus, it is also recommended to conduct the same study to Talisay Campus since it is the degree granting unit of Carlos Hilado Memorial State College.
7. A "Very Satisfactory" result regarding the on-the-job training performance and communication competence of the Bachelor of Science in Industrial Technology students as perceived by the OJT supervisor is a not a bad result after all. However, there is always a room for improvement to make it "Excellent".

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READING COMPREHENSION AND ACADEMIC ACHIEVEMENT OF THE BACHELOR OF SCIENCE IN INDUSTRIAL TECHNOLOGY STUDENTS: BASIS FOR INTENSIVE READING PROGRAM

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The study determined the reading comprehension (specifically, noting details and getting the main idea, paragraph organization, getting word meaning through contextual clues and forming conclusions) and the academic achievement of the Bachelor of Science in Industrial Technology (BSIT) students of CHMSC-Alijis Campus for AY 2014-2015 as basis for the formulation of an intensive reading program.

The instrument used was a validated and reliability tested Reading Comprehension Questionnaire. The means and standard deviation were employed as descriptive statistics, while One- Way Analysis of Variance and Pearson Product Moment Coefficient of correlations were used as inferential statistics.

The data on academic achievement was provided by the Registrar's Office. The study revealed that as an entire group the Reading Comprehension of the Bachelor of Science (BSIT) students was "Fair". Their Academic Achievement was "Very Good" in General Education Subjects and "Superior" in Major / Shop subjects. The Reading Comprehension of the Bachelor of Science in Industrial Technology (BSIT) students while significantly related to technology enrolled in, it significantly differs to it in terms of Getting the Main Idea, Paragraph Organization and Context clues. The Reading Comprehension is also significantly related to the students' Academic Achievement. On the other hand, the Academic Achievement of the Bachelor of Science in Industrial Technology (BSIT) students significantly differ and related to technology enrolled in.

An intensive reading program is therefore recommended to enhance interest in English Subjects and improve the reading comprehension of the Bachelor of Science and Technology (BSIT) students to address the "Fair" result.

Keywords: Reading Comprehension, Academic Achievement, Bachelor of Science in Industrial Technology Students, Basis for Intensive Reading Program

Introduction

Background of the Study

Reading comprehension is the ability to read text, process it and understand its meaning. An individual's ability to comprehend text is influenced by their traits and skills, one of which is the ability to make inferences. If word recognition is difficult, students use too much of their processing capacity to read individual words, which interferes with their ability to comprehend what is read.

Reading comprehension is defined as the level of understanding of a text/message. This understanding comes from the interaction between the words that are written and how they trigger knowledge outside the text/message. Comprehension is a "creative, multifaceted process" dependent upon four language skills: phonology, syntax, semantics, and pragmatics. Proficient reading depends on the ability to recognize words quickly and effortlessly. It is also determined by an individual's cognitive development, which is "the construction of thought processes". Some people learn through education or instruction and others through direct experiences.

Miller (1990) in Cabansag et.al (2013) stated that the ability to read recognized as one of the most important skills that a person can have. It is a tool of the acquisitive mind and a vehicle for obtaining ideas that cannot be transmitted verbally. The individual who reads well has at its command a means for wideninghis mental horizon and for multiplying his opportunities for experience.

Furthermore, reading is one of the academic areas in which we demand success from all students. Unless a child is equipped with the basic reading skills, he will not be able to study independently and effectively most especially in the content subjects. Every reading teacher therefore, should aim to develop in his students the basic reading skills such as noting details, getting several significance of a selection, predicting outcome of a given event, following precise directions and reading exercises on comprehension.

It is in this light that the researcher necessitated to conduct a study on reading comprehension

and academic achievement of the Bachelor of Science in Industrial Technology students (BSIT) as Basis for Intensive Reading Program.

Statement of the Problem

The purpose of the study is to determine the reading comprehension and academic achievement of the Bachelor of Science in Industrial Technology (BSIT) students of CHMSC- Alijis Campus for AY 2014-2015.
Specifically, it seeks to answer the following problems:

1. What is the reading comprehension of the Bachelor of Industrial Technology (BSIT) students in: noting details and getting the main idea, paragraph organization, getting word meaning through contextual clues and forming conclusions when taken as a whole and grouped according to technology enrolled in?
2. What in the level of academic achievement of the Bachelor of Science in Industrial Technology (BSIT) students when taken as a whole and grouped according to technology enrolled in?
3. Is there a significant difference in the reading comprehension of the Bachelor of Industrial Technology (BSIT) students in: noting details and getting the main idea, paragraph organization, getting word meaning through contextual clues and forming conclusions and technology enrolled in?
4. Is there a significant difference in the level of academic achievement of the Bachelor of Industrial Technology (BSIT) students and technology enrolled in?
5. Is there a relationship between reading comprehension and the level of academic achievement of the Bachelor of Industrial Technology (BSIT) students?
6. What reading program should be formulated?

Methodology

The descriptive-correlational method of research was used in this study. Descriptive research is a design which aims to describe the nature of a situation as it exists at the time of the study and to explore the causes of particular phenomena (Gay, 1996).
Stratified random sampling was employed in the selection of the participants.

Respondents of the Study
The participants of this study were the 144 second year students of the Bachelor of Science in Industrial Technology (BSIT) major in Electrical, Electronics, Architectural Drafting, Computer, Automotive, and Mechanical Technology for Academic Year 2014- 2015.

Research Instrument Used

There was one research instrument utilized in this study. This was the Reading Comprehension Questionnaire. This contained 50 items distributed as

Distribution of the Bachelor of Science in Industrial Technology Students

Category	f	%
Entire Group	144	100
Automotive Tech	21	14.6%
Computer Tech	29	47.2%
Arch Drafting Tech	10	6.9%
Electrical Tech	18	12.5%
Electronics Tech	15	10.4%
Mechanical Tech	15	10.4%
Foods Trades Tech	36	25.0%

follows: 10 items for noting details, 10 items for getting the main idea; 10 items for paragraph organization; 10 items for context clues; and 10 items for drawing conclusions.

To establish the validity of the instruments, a panel of five jurors who were experts in this field validated the content of the questionnaire. This was evaluated using the criteria developed for the evaluation of survey questionnaires set forth by Carter V. Good and Douglas B. Scates. The final draft of the questionnaire was prepared after considering the juror's corrections and suggestions for improvement.

The statistical tool used to determine the reliability and the internal consistency of the instrument was the alpha coefficient known as Cronbach Alpha. The questionnaire was pilot tested and the result of the pilot administration was subjected to reliability test using the Statistical Package for Social Sciences (SPSS) Software. The obtained reliability coefficient Cronbach Alpha was 0.83 for the Rating Scale on Factors Influencing English Proficiency Descriptive Questionnaire.

The data pertaining to academic achievement in both general education and major subjects were provided by the Registrar's Office after asking permission and assuring the said office that these data will be specifically use for this study.

The means and standard deviation was employed as descriptive statistics while One-Way Analysis of Variance and Pearson Product Moment Coefficient of correlations were used as inferential statistics.

Summary of Findings

The major findings of the study were as follows:

1. As a whole the Reading comprehension of the Bachelor of Science (BSIT) students was "Fair". In terms of Noting details, it was "Very Satisfactory", while in terms of Getting the main idea, Paragraph organization, Getting word meaning through context clues and Forming conclusions it scored "Fair".
2. As a whole the Academic Achievement of the Bachelor of Science (BSIT) students was "Very Good" in General Education Subjects and "Superior" in Major / Shop subjects.

The Level of Academic Achievement of the Bachelor of Science in Industrial Technology (BSIT) Students

Category	Academic Achievement					
	General Education Subjects			Major/ Shop Subjects		
	M	SD	V I	M	SD	V I
A.As a Whole	82.69	4.46	V G	88.02	3.47	S
B. Per Technology						
1.Automotive Technology	83.43	3.77	V S	87.95	1.90	S
2.Electrical Technology	86.44	4.13	S	87.50	4.55	S
3.Computer Technology	79.79	4.36	G	87.03	1.72	S
4.Mechanical Technology	79.73	4.79	G	91.00	2.83	E X
5.Arch.Drafting Technology	81.50	2.55	V G	94.10	2.42	E X
6.Electronics Technology	86.20	4.06	S	88.33	3.92	S
7. Food Trades Technology	82.81	2.89	V G	86.06	2.12	S

Legend:

Scale	Description
91-100	Excellent
86-90	Superior
81-85	Very Good
76-80	Good
75.00	Fair / Passing

3. The Reading Comprehension of the Bachelor of Science in Industrial Technology (BSIT) students specifically in Getting the main idea, Paragraph Organization and Context clues significantly differ to technology enrolled in however, there was no significant difference in Noting details and Forming conclusions.

4. The Academic achievement of the Bachelor of Science in Industrial Technology (BSIT) students significantly differ to technology enrolled in.
5. The Reading Comprehension of the Bachelor of Science in Industrial Technology (BSIT) students

ANOVA Test Results for the Differences between the Academic Achievement and Technology Enrolled In of BSIT Students

Academic Achievem ent	Sum of Squares	df	Mean Square	F	Sig.
Bet Groups	19.463	6	3.244	.788	.008**
Within Groups	564.287	137	4.119		
Total	583.750	143			

was significantly related to technology enrolled in.

6. The Academic Achievement of the Bachelor of Science in Industrial Technology (BSIT) students

Pearson's r Test Results for the Relationship between Reading Comprehension and Technology Enrolled In of BSIT Students

		Technology Enrolled In	Reading Comprehension
Technology Enrolled	Pearson Correlation	1	.674
	Sig. (2-tailed)		.002**
	N	144	144
Reading Comprehension	Pearson Correlation	.674	1
	Sig. (2-tailed)	.002**	
	N	144	144

Correlation is significant at the 0.05 level (2-tailed)

was significantly related to technology enrolled in.

7. The Reading Comprehension of the Bachelor of Science in Industrial Technology (BSIT) students was significantly related to Academic Achieve-

Pearson's r Test Results for the Relationship between Academic Achievement and Technology Enrolled In of BSIT Students

		Technology Enrolled In	Academic Achievement
Technology Enrolled In	Pearson Correlation	1	.367
	Sig. (2-tailed)		.033**
	N	144	144
Academic Achievement	Pearson Correlation	.367	1
	Sig. (2-tailed)	.033	
	N	144	144

Correlation is significant at the 0.05 level (2-tailed)

ment.

Pearson's r Test Results for the Relationship between Reading
Comprehension and the Academic Achievement of BSIT Students

	Reading Comprehension	Academic Achievement
Reading Comprehension		.
Pearson Correlation	1	523
Sig. (2-tailed)		.001**
N	144	144
Academic Achievement		
Pearson Correlation	.523	1
Sig. (2-tailed)	.001	
N	144	144

Correlation is significant at the 0.05 level (2-tailed)

Conclusions

In view of the findings, the following conclusions were drawn:

1. Generally, the Reading comprehension of the Bachelor of Science (BSIT) students was "Fair". Though it rates "Very Satisfactory" in terms of noting details yet it is only fair in various others such as getting the main idea, paragraph organization, getting word meaning through context clues and forming conclusions.
2. Noted in this research is the superior rating of BSIT students' when it comes to Academic Achievement in their major or shop subjects while getting only "very good in General Education subjects, which includes English.
3. There is a significant difference in the Reading Comprehension of the Bachelor of Science in Industrial Technology (BSIT) students with technology enrolled in, specifically in Getting the main idea, Paragraph Organization and Context Clues. However, there was no significant difference in Noting Details and Forming Conclusions.
4. There is a significant difference and at the same time relation between Academic achievement and to technology enrolled in of the Bachelor of Science in Industrial Technology (BSIT) students.
5. There is a significant relation between Reading Comprehension of the Bachelor of Science in Industrial Technology (BSIT) students and technology enrolled in; and between Reading Comprehension and Academic Achievement..

Recommendations

In view of the findings and conclusions of the study, the following are recommended:
1. The Reading comprehension of the Bachelor of Science in Industrial Technology (BSIT) students was "Fair". The administration of Carlos Hilado Memorial State College, specifically, the School of Arts and Sciences with the help of all faculty handling English subjects must design a program that will motivate students to value and put interest to English subjects specifically in Reading comprehension.
2. Since the result of this study will be a basis for intensive reading program, it is recommended that this reading program must give emphasis to the different interest of the students since they are enrolled in different technology. Moreover, reading program must be implemented consistently without excuses.
3. Reading comprehension must be given much emphasis in the curriculum. Curriculum planners and curriculum review committee must see to it that it must be integrated in all subjects offering not only in English subjects.
4. Reading comprehension was significantly related to academic achievement. Based on the findings of the study as an entire group reading comprehension was score "Fair", academic achievement in terms of general education subjects was "Very Good" and in terms of major/ shop subjects "Superior". It is recommended therefore, to dig deeper to the different factors affecting / influencing a medial result on reading comprehension.
5. The teachers of English of Carlos Hilado Memorial State College must be given equal opportunity to attend to seminars and trainings pertaining to the different and latest strategies in teaching reading for them to keep abreast with the rapid changes happening in the education arena.
6. The present study focused only on Reading comprehension. It is recommended that further research should be done by taking into considerations other variables like different exposure to mass media and learning styles.
7. The result of this study must be submitted to the Department of Education for them to be aware of the graduates that they are producing in terms of Reading Comprehension so that proper, immediate and mandatory actions and plan will be implemented.
8. Faculty researchers of the other three campuses of Carlos Hilado Memorial State College are also encouraged to conduct the same study in their respective campuses.
9. Other researches could replicate, confirm, disprove or expand this study by making deeper analysis of the variables being studied.

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ACQUISITION AND ACTUALIZATION OF LIFE-LONG COMPETENCIES: A TRACER STUDY OF GRADUATE STUDIES GRADUATES

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ABSTRACT

In a bid to ascertain the extent of acquisition and implementation of the life-long learning skills of the graduates, a tracer study of the graduates - from their school of origin to their place of employment - is a requirement. This study aimed to trace the acquisition and actualization of life-long competencies among the graduates of the Graduate Studies of Carlos Hilado Memorial State College from 2009 to 2015. It utilized the descriptive survey method with 37 graduates as respondents. The data were sourced from the students' form and filled-out questionnaires by the graduate-respondents. Frequency, percentage, ranking, standard deviation and weighted mean were the statistical tools adopted in the study. The Graduate Studies produced a total of 46 graduates since 2009 with M.A.T. graduates comprising the highest percentage. In terms of total graduates, academic year 2013-2014 gave out the highest number of graduates representing 37% of the total. Majority of the graduates are 35 years old and below, male, employed in public secondary schools and now occupy middle management positions. The graduates' show very high level of assessment of the Graduate Studies program and similarly high level of acquisition and actualization of the life-long skills. The Graduate Studies experience resulted to increase in income and progression in their work. Identified as areas needing improvement, the college has to course directions towards improved payment scheme, enhanced learning environment exemplified by richer experience of learning resources, more realistic research and extension undertakings. Strengthened efforts towards acquisition of life-long skills are further proposed.

Keywords: Tracer study, acquisition, actualization, lifelong competencies, descriptive

INTRODUCTION

In today's competitive environment, the role of education is not only to impart knowledge and develop competencies but likewise to ensure that graduates are socially recognized and successful in their respective fields of endeavors. Particularly, in education field, finishing a four-year undergraduate degree does not suffice to enable one to survive and stay ahead in the midst of global demands. Pursuing higher studies in the Graduate Studies is a compelling necessity.

Graduate education is believed to be the apex of the educational system. In the field of education, graduate studies is one of the more effective means of improving the capacities of education professionals who aim to contribute to the continued improvement of teaching and learning in the classrooms, delivery of students services, and management of educational programs. Graduate education is one of the most effective means of developing capacities related to doing research that will improve educational theory and practice in the many different aspects of the educational process (CMO No. 53, 2007).

Carlos Hilado Memorial State College serves as a training ground of competent education and school frontrunners through quality graduate educa-

tion in preparation for administrative works and instructional leadership in educational fields. In a bid to ascertain the extent of acquisition and implementation of the life-long learning skills of the graduates, a tracer study of the graduates - from their school of origin to their place of employment - was conducted.

This study specifically determines the consequence of Graduate Studies education, and the acquisition and actualization of the life-long skills among the graduates. It further discloses the effectiveness and relevance of the College Graduate Studies curricula, instructional processes, learning environment, modes of measurement, learning resources and financial prerequisite. The empirical data gathered from this study will provide significant inputs for the college to improve its current curricula and instructional modes/deliveries.

Objectives of the Study

This study aimed to trace the graduates of the Graduate Studiess Programs of the College of Education of Carlos Hilado Memorial State College-

Talisay from academic year 2009-2010 to 2014-2015. Specifically, it intended to provide the following information:

1. The number of graduates in the Graduate Studies Programs (Master of Arts in Educational Management, Master of Arts in Teaching English, Mathematics, General Science and Technology and Livelihood Education, Doctor in Education) of the College of Education of Carlos Hilado Memorial State College from academic year 2010-2011 to year 2013-2014;
2. The profile of the graduates in the Graduate Studies Programs in terms of age, sex, current employment and position;
3. The level of assessment of graduates of the Graduate Studies Programs of CHMSC in terms of the different learning aspects;
4. The consequence of Graduate Studies education acquired at CHMSC;
5. The level of assessment of graduates of the contribution of their obtained degree in the development/enhancement of their life-long competencies;
6. The level of assessment of graduates of the actualization of their life-long competencies in their current work; and
7. The areas of Graduate Studies that require improvement.

Framework of the Study

Students must be prepared for life, not just for careers. Given the eccentricities of life, it is of utmost importance that learners are developed in such a way that they are made capable of responding to human vocal commands and societal demands. Perelman as cited in Vega (2015), averred that there is a strong case of educational transformation and that knowledge acquisition is no longer something that happens only in school; now it occurs everywhere and is lifelong.

Lifelong learning is "all purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence". An endeavor of higher education is to prepare students to be this type of learner by developing specific dispositions and skills described in this rubric while in school (The European Commission, 2000). Trilling, Fadel and Wiley (2009) identified these lifelong skills as learning to create together, to innovate, critical thinking, problem solving, communication, collaboration, creativity, innovation, information, digital-literacy skills

The study is anchored on the progressivism philosophy cited in the book of Bilbao, (2006) that espoused learning to be a continuous or a lifelong process. Since society evolves and change is inevitable, a learner must be taught "how to learn" instead of "what to learn."

In the light of transcending expectations and numerous distractions around, it is impressive to see trained professionals handling them all with expertise and confidence. With this, a lot of credits goes to the schools which have adapted to the prevailing context and impending future in several ways.

MCNergy (2001) described the school as an established organization having an identifiable structure and primary function of moving young people in the mainstream of society. The curricula, teaching, process of evaluation and relationships among people reinforce a public image to which young people are expected to aspire. This image is concerned with preserving heritage, adapting to social change and making change happen where it is needed. The economic purpose of schooling is to prepare students for their latter occupational roles and select, train, and allocate individuals into the division of labor. An educated citizenry is vital to implementing sustainable development in the society. In fact, as Vega (2015) put it, a national sustainability can be enhanced or limited by the level of education attained by the nation's citizens. It is therefore presumed that the kind of education and training the school provides to the learners will determine the kind of citizens they will turn out to be in the future, and in due course, determine the picture the society portrays.

Carlos Hilado Memorial State College partakes in the stride of producing a holistically trained teachers and school managers that will llead efforts towards qua lity and excellence in education. It is a leading institution in higher and continuing education committed to engage in quality instruction through relevant academic programs to empower human resource that responds effectively to challenges in life and acts as catalyst in the holistic development of humane society. Iit implements master's and doctoral degree programs on education for the elementry and secondary teachers who possess necessary potentials and motivation for instructional leadership (CHMSC Student Handbook , 2015). Accordingly, it has efforts to ascertain and corroborate whether or not its curricular programs are truly relevant and responsive to the needs and demands of the country in general and of the province of Negros occidental in particular (Esmeralda, 2013).

This study trails the graduates of the Graduate Studies programs of the College of Education focusing on the acquisition of life-long learning competencies from their master's and doctoral degrees and actualization of those learned skills in their respective

fields.

Graduate tracer studies can provide valuable feedback in terms of performance of higher education institutions in providing the human resource needs of the various sectors of society. Such undertaking is one of the priority areas of the National Higher Education Research Agenda (National Higher Education Research Agenda 2 , 2009).
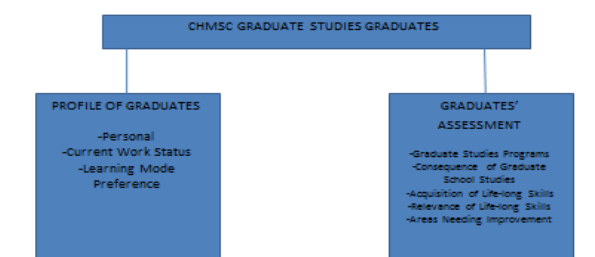
METHODOLOGY

Research Design

The tracer study used descriptive-research design. It observed a purposive process of gathering and analyzing data to provide clearer representations of CHMSC Graduate Studies Graduates profile and assessment of the college curricular offerings, instructional processes, learning environment, assessment tools, resources and financial requisites.

Respondents of the Study

The researcher selected 37 out of the total 46 graduates who were conveniently available at the time of data gathering. In this light, non-probability sampling of subjects was adopted. They represent 80% of the total number of graduates from academic year 2009-2010 to 2014-2015.

Instrument

The researcher made use of the student's registration form to gather information on the respondents' profile based on age, sex, program completed at the college, year graduated, current employment and position. The graduates' preference of learning mode and assessment of CHMSC Graduate Studies programs and acquisition and actualization of life-long skills were information taken from the answered survey questionnaire.

The items in the questionnaire were reviewed for appropriateness and meaningfulness by the three (3) members of the panel of evaluators with earned degrees in the master's and doctoral programs. Likewise, it was subjected to a field test to 20 education graduates who are currently taking up master's degree courses at the college in order to establish the consistency/constancy of responses.

Procedures

Names, addresses and contact numbers of the graduates from year 2010 to 2015 were obtained from the offices of COED Dean and Alumni Director. The data were gathered through direct contact with 27 respondents and 10 respondents were reached through electronic networking site.

Data Analysis Procedure

The data were classified, tabulated and coded for analysis. Frequency, percentage, ranking, standard deviation and weighted mean were the statistical tools utilized in the study. To interpret and analyze the mean-generated data, the scoring scale below was observed:

SCORES	Verbal Interpretation
4.21-5.00	Very High
3.41-4.30	High
2.61-3.40	Moderately High
1.81-2.60	Low
1.00-1.80	Very Low

RESULTS AND DISCUSSION

The presentation below reflects the results drawn from the data collected through survey using the generally accepted statistical tools and principles. The Graduate Studies of College of Education of CHMSC produced a total of 46 graduates from academic year 2009-2010 to 2014-2015 – 61% of the total are Master of Arts in Teaching English, Mathematics, General Science and Technology and Livelihood Education, 24% are Master of Arts in Educa-

Table 1

Number of Graduates in the Graduate Studies of CHMSC-COED from AY 2009-2010 to 2014-2015

Academic Year/Program	M.A.T.	%	M.A.Ed.	%	Ed.D	%	Total	%
2009-2010	1	4%	2	18%	0	0%	3	7%
2010-2011	0	0%	2	18%	0	0%	2	4%
2011-2012	2	7%	1	9%	3	43%	6	13%
2012-2013	2	7%	5	45%	0	0%	7	15%
2013-2014	13	46%	1	9%	3	43%	17	37%
2014-2015	10	36%	0	0%	1	14%	11	24%
Total	28	61%	11	24%	7	15%	46	100%

tional Management and 15% are Doctor of Education graduates. Academic year 2013-2014 has the most number of graduates comprising 37% of the total followed by academic year 2014-2015 representing 24 % of total graduates. It could be seen that from

from academic year 2009-2010 to academic year 2013-2014, the number of graduates in the Graduate Studies continually increases with a slight decline in academic year 2014-2015.

There is a high extent of the growth in undergraduate and, more recently, graduate education across the region. The enrolment growth at the Bachelor's level provides original impetus for higher education systems to expand into graduate education. The key consequences of that expansion are impact of system expansion on public financing of higher education, the role of private higher education in absorbing the growing demand for access, and the implications of increased access on equity (UNESCO Institute for Statistics, 2014).

The Council of Graduate School in United States likewise reported that the overall enrollment in colleges and graduate schools continues to increase. It explained that the current economy contributes to this trend - a growing number of "career changers" or laid-off workers are looking to graduate education in hopes that an advanced degree will ensure continued employability and/or career advancement. These changes point to the need to reconsider how graduate students are financially supported as well as what kinds of additional resources they may need to succeed in graduate study. The changing demographics also may require a reconsideration of traditional time-to-degree expectations and career pathway opportunities, pointed out by Wendler (2010).

Seventy (70%) of the total 46 graduates in the Graduate Studies programs are 35 years old and below which is comprising the biggest percentage

Table 2
Profile of Graduates in the Graduate Studies of CHMSC-COED from AY 2009-2010 to 2014-2015

VARIABLES	F	%
N	46	100%
AGE		
35 years old and below	32	70%
36-50 years old	18	39%
51 years old and above	16	35%
SEX		
Male	13	28%
Female	33	72%
CURRENT EMPLOYMENT		
Public Elementary	6	13%
Private Elementary	0	0%
Public Secondary	22	48%
Private Secondary	2	4%
Public Tertiary	12	26%
Private Tertiary	4	9%
CURRENT POSITION		
Supervisor	2	5%
School Head/Principal	7	15%
Head Teacher	23	50%
Faculty	14	30%

followed by graduates belonging to 36-50 year-old

age group at 39%. Indexed according to sex, 72% are female (33 out of 46) and 28% are male (13 out of 46). Forty-eight percent (48%) are employed in public secondary schools, 26% in public tertiary schools, 13% in public elementary schools. A total of 13% (4% +9%) are connected with private secondary and tertiary institutions. Of the 46 graduates who are currently employed, 2% are now supervisors, 15% are principals and 50% are head teachers/subject chairs and 30% belong to the rank and file position. Combining the percentages 70% are now with higher positions (5%+15%+50%) and those belonging to faculty positions are mostly graduates of academic year 2014-2015 who are now waiting for increments and update in academic rank.

Of the six (6) learning aspects at CHMSC, the graduates assigned the highest rating to instruction with 4.78 mean rating interpreted as very high. This shows that Graduate Studies instructors possess the desired/expected professional and technical competencies in handling Graduate Studies subjects. The

Table 3
The Assessment of Graduates of CHMSC Graduate Studies

LEARNING ASPECTS	Mean	Sd	Interpretation
Content/Program	4.70	0.47	Very High
Instruction/Professors	4.78	0.01	Very High
Learning Environment	3.70	0.01	High
Measurement/Assessment	4.56	0.64	Very High
Learning Opportunities/Resources	4.30	0.54	Very High
Financial Requirement	4.37	0.00	Very High
Total	4.40	0.28	Very High

assigned rating for the content/program of 4.70 interpreted as very high is a manifestation that the graduates consider that Graduate Studies curricula to be relevant and responsive to their educational needs. Measurement and assessment (4.56) and financial requirements (4.37) and learning opportunities/resources (4.30) are likewise given very high level of assessment. The very high rating could be explained by the college very selective procedure in identifying faculty members to handle subjects in the doctoral program, strict compliance with the standards set by the Commission on Higher Education (CHED) on curriculum requirements, rigorous curricular review process, employment of objective tools to measure students' performance, reasonable fees and provision of academic support services and far-reaching learning experiences that would ensure complete development of their potentials as subject specialists or

educational leaders.

Nevertheless, the mean score for learning environment (3.70) is bit lower compared to other learning aspects. This is referring to the utilization of equipment and facilities. This result accounts to insufficient budget the government appropriates to enhance school infrastructure and instructional device. The college Graduate Studies also follows self-liquidating scheme where the main proceeds of the fee collected from the students are utilized for teachers' salary.

The Department of Education, United States of America, hinted that good facilities appear to be an important precondition for student learning. A growing body of research links student achievement and behavior to the physical building conditions and environment. Relative to this, the Commission on Higher Education (CHED) stressed the need to boost the SUCs' 2011 and 2012 budgets that had minimal provision for capital outlay since 2000. Major initiatives to improve the capacity of SUCs to offer relevant and quality higher education should include modernizing and upgrading infrastructure and facilities (CHED, July 24, 2014).

Table 4
The Consequence of Graduate Studies Education

	F	%
Higher Income	27	100.00%
Higher Progression in the same work	20	74.07%
Higher Mobility Across Jobs	6	22.22%

Notably, 100% of graduates claimed that their Graduate Studies Education resulted to salary increment while 74.07% (20 out of 26) were given promotion or movement in the same work. Mobility across jobs was quiet apparent with 22.22% or six (6) out of the total 26 who were designated administrative and other functions not analogous to their current work.

Martin (2012) strengthened that graduate education really makes a difference in one's career and earning potential. It can lead to personal growth, greater employment opportunities, greater career advancement, financial reward, greater sense of accomplishment, recognition and credibility.

The graduates' assessment of their acquired

Table 5
The Assessment of Graduates of their Acquisition of Life-long Competencies at CHMSC Graduate Studies

	Mean	Sd	Interpretation
Technical/Professional Knowledge	4.70	0.47	Very High
Communications Skills	4.67	0.48	Very High
Information/Technology Skills	4.15	0.66	High
Teamwork/Collaboration Skills	4.41	0.69	Very High
Problem Solving Skills	4.37	0.49	Very High
Creative Thinking Skills	4.22	0.51	Very High
Human Relations Skills	4.41	0.64	Very High
Leadership Skills	4.63	0.49	Very High
Decision-Making Skills	4.44	0.51	Very High
Organizational Skills	4.48	0.51	Very High
Negotiation Skills	4.74	0.53	Very High
Total	4.47	0.54	Very High

life-long skills at the college is very high. This encompasses acquisition of negotiation skills at 4.74, technical/professional knowledge (4.70), communication (4.67), leadership (4.63), organizational (4.48), decision-making (4.44), teamwork/collaboration and human relation (4.41), problem solving (4.37), and creative thinking (4.22). The lowest assessment goes to information/technology at 4.15. This attributed to the fact that their learning of technology is simply restricted to preparation and presentation of reports, term papers and researches. Subjects with more sophisticated application of technologies are not covered in the Graduate Studies curricula. Notwithstanding the last result, it could be gleaned that the college has equipped the graduates with complete experience of the life-long skills.

Carlos Hilado Memorial State College has a mandate to prepare students for globally competitive work environment where application of life-long skills is required. It is a leading institution in higher and continuing education committed to engage in quality instruction, development-oriented research, sustainable lucrative economic enterprise, and responsive extension and training services through relevant academic programs to empower a human resource that responds effectively to challenges in life and acts as catalyst in the holistic development of a humane society (CHMSC, 2016) .

The graduates' assessment their learning of life-long skills in their current work is very high. Skills on teamwork/collaboration, human relations, leadership,

Table 6
The Assessment of Graduates of the Actualization of Acquired Life-long Competencies in their Current Work

	Mean	Sd	Interpretation
Technical/Professional Knowledge	4.81	0.40	Very High
Communications Skills	4.81	0.40	Very High
Information/Technology Skills	4.81	0.40	Very High
Teamwork/Collaboration Skills	5.00	0.00	Very High
Problem Solving Skills	4.93	0.27	Very High
Creative Thinking Skills	4.85	0.36	Very High
Human Relations Skills	5.00	0.00	Very High
Leadership Skills	5.00	0.00	Very High
Decision-Making Skills	5.00	0.00	Very High
Organizational Skills	5.00	0.00	Very High
Negotiation Skills	5.00	0.00	Very High
Total	4.93	0.17	Very High

decision-making, organizational and decision-making yielded the perfect score of 5.00 which is an indication of imperative demand to cover these skills in the Graduate Studies learning experience. Problem solving skills (4.93), creative thinking (4.85), technical/professional knowledge (4.81), communication (4.81) and information/technology skills (4.81) also indicated very high level of importance. Although the graduates pronounced their very high level of acquisition of these desired competencies, improvements can

continuously be applied in order to promote excellent performance among the graduates.

Selvi (2009) considered learning as the main instrument to carry out and deliver all the changes in the life process. It allows one to construct meanings depending on personal perspectives and self-experiences. Lifelong skills developed among learners allow them combine these perspectives and experiences as they create new directions and search the perfect environment to live in. They are the most powerful tools to deal with personal or work-related difficulties and improve their life conditions. CHMSC Graduate Studies graduates identified the

Table 7
Areas Needing Improvement in CHMSC Graduate Studies

Areas	F	%
Community Extension	4	15%
Linkages	3	11%
Research	11	41%
Facilities	2	7%
Equipment	14	52%
Mode of Payment	22	81%
Total	27	100%

mode of payment as the area that requires improvement. Twenty-two (22) out of the total 27 respondents representing 81% of the total found the outright collection of fees difficult as they have to dip into their limited resources just to enroll every semester. Fifty-two percent (52%) cited provision of equipment and other classroom technologies to be inadequate. The college also needs to initiate relevant undertakings that would enhance students' research capability (15%) and involve them in more community extension undertakings (11%).

SUMMARY OF FINDINGS

The findings of the investigation are summarized as follows:

1. The number of CHMSC Graduate Studies graduates is continually increasing. Most of the graduates are subject specialists.
2. Majority of CHMSC Graduate Studies graduates are 35 years old and below, female, employed in the public schools and now assigned administrative, directorial and supervisory positions.
3. The different learning aspects of CHMSC Graduate Studies in terms of content, instructional processes, learning opportunities, measurement, learning opportunities, resources and financial requisites earn very high level of assessment from the graduates except for learning environment which yielded a high level of assessment.
4. Higher income and progression in the same work are the leading consequences of Graduate Studies Education.
5. CHMSC Graduate Studies graduates acquired to a very high extent the life-long skills during their stay at the college.

6. CHMSC Graduate Studies graduates show very high level of actualization of their acquired life-long skills in their current work/assignment.
7. More improved mode of payment, utilization of instructional tools/equipment, research and extension are the areas of CHMSC Graduate Studies that need improvement.

CONCLUSIONS

Based on the foregoing findings, the following conclusions are presented:

1. CHMSC Graduate Studies is a recognized institution in the field of education. It is very much recognized by teachers who desire to pursue higher degrees in education, particularly, the subject specialists.
2. CHMSC Graduate Studies is attractive to young, female and public school teachers. Their Graduate Studies experience helps them in creating long-term career opportunities.
3. CHMSC Graduate Studies satisfies the different learning areas considered in the offering of quality learning to its graduates. Nevertheless, learning environment which includes provision and increased utilization of equipment and facilities requires priority.
4. CHMSC Graduate Studies graduates possess the life-long skills needed for teachers, educational managers and leaders.
5. Pursuing Graduate Studies is beneficial to upgrade the graduates' work status and salary.
6. Clearly perceived as major prospects in the successful performance of jobs are the life-long skills.
7. The graduates view the imposed "full payment" upon enrollment hard to comply; and consider more improved instructional resources and wider opportunities for research and extension activities essential to deliver a higher quality of Graduate Studies education.

RECOMMENDATIONS

The college has to course direction towards a more competitive Graduate Studies Education. In this regard, the following recommendations are hereby proposed:

1. Prioritize enhancing technology capability through provision of additional instructional tools and technologies
2. Develop additional and alternative channel to deliver instructional materials and activities that may increase students' constant engagement with learning like the adoption of course website.
3. Sustain and strengthen efforts towards the development of life-long skills activities through creative classroom interactions and simulation activities characterized by affirmation, communication, cooperation, appreciation for diversity, appropriate expression of feelings and peaceful conflict resolution.
4. Adopt an installment scheme for payment of Graduate Studies fees
5. Conduct follow-up research that would specifically gauge or determine the performance, career advancement and the future career prospects of the graduates

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PROBING INTO THE INNER WORLD OF THE GRAFFITISTS

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ABSTRACT

Graffiti is now currently harming the local residents, organizations, businesses and property owners in the city. Is artistic merit enough of an excuse? Can society just let people run wild? A clash between the owner of the wall and the person who painted on it is evident. The paper aimed to divulge the inner sphere of the graffitists – their life, work and writings on the wall. The researcher used the descriptive phenomenological approach to inquiry involving the 27 graffitists in Talisay City chosen at random through referrals. The interview method and Focus Group Discussion (FGD) were employed to gather reliable data from the respondents. Frequency count and percentage were adopted to deal with the quantitative data; and thematic analysis utilizing the qualitative approach was used to present and analyze the qualitative data. The findings revealed that graffiti is profuse in the city of Talisay. The graffitist-respondents were mostly adults and came from troubled or unstable family. They convey their existence, strength and pleasure in their work. Their engagement in graffiti rooted from their family, peer and environment. Stricter regulative measures have to be implemented to regulate illegal graffiti.

Keywords: graffiti, art, vandalism, regulation, phenomenology

Background of the Study:

Passersby in the urban cityscape can observe the colorful, provocative, illegal eyesore painted on the wall, fence or gate of built structures along the main and secondary roads. Although many consider the spray-painted pieces a nuisance, graffiti has been gaining recognition from the art world more and more as a legitimate form of art.

Graffiti is from the Italian word *graffiato* which means scratched. It has long history that goes back to the figure drawings found in the walls of ancient ruins in Rome and monuments in Egypt. Since then, the art, style and usage of graffiti has evolved as a means to communicate social and political messages and is linked with punk rock and the hiphop culture. Today, graffiti art is a global phenomenon viewed and opined by young and old alike (DelaPaz, 2014).

Graffiti can be analyzed and classified according to the elements of lines, color, and structures that are present in the work in order to produce a narrative about it (Tolstoy, 1960). These include: (a) the wildstyle which relies on the use of primary colors, fading, foreground and background, and the like to create letters; (b) tags which depict the artist's signature and are considered most popular and the simplest form of graffiti; (c) stencils which are done by making a stencil of the artwork and filling it in with spray paint; (d) stickers where an artist draws or stencils on an adhesive paper and place them in public places; (e) throw ups that are typically a two-color work designed executed quickly; (f) pieces which are considered the most elaborate graffiti work, with a more artistic composition; (g) reverse graffiti which refers to cleaning dirt off of the sides of buildings or inside tunnels to make a design; and (h) laser tag which is done using a high-tech laser and high-power projector.

Graffiti has artistic merits but still in fact a form of vandalism. Artists tag both public and private property, which becomes costly for tax payers and business and property owners. In 2006, Chicago budgeted $6.5 million while Omaha, Neb. spent about $100,000 annually for the clean-up costs of graffiti (http://www.graffitihurts.org/, 2015). In addition, graffiti vandals often shoplift their materials, according to the U.S. Department of Justice. Stealing spray paint and markers adds an additional cost to businesses. Graffitists also became associated with gangs and people became afraid of riding the vandalized subways (Sanchez, 2007).

The proliferation of graffiti is one of the most visible

problems of the society today. Both public and private establishments were affected as unknown individuals turn them into their freedom boards. Establishments and structures City are getting destroyed and dirty making the city unattractive and uninviting to tourists and guests. Despite its being so rampant, the graffiti writers' background and reasons for doing so remains unknown. Most people associate this form as acts associated with fraternities yet no one has really proven the underlying reasons behind this matter.

Objectives:
The paper aimed to provide descriptive investigation of the graffitists and their work in the main vicinity of Talisay City during year 2014 which covered the following:
1. The extent of unauthorized graffiti in the main vicinity of Talisay City
2. The profile of the graffitists in terms of: (a) age; (b) sex; (c) residence; (d) school status; (e) parents' marital status;(f)parents' occupation; (g) sibling ordinal position; (h) number of family members; and (i) economic status.
3. The most commonly used graffiti forms/styles
4. The ideas/messages the graffitists would like to convey in their artwork
5. The carrying out of the illegal act of graffiti
6. The underlying reasons of graffitists' engagement in illegal graffiti
7. The graffitists' perception of their work – an expression of art or a form of vandalism
8. The corrective and preventive measures the local government undertake to regulate the profuse graffiti in the main vicinity of Talisay.
9.

Framework of the Study

The "Strategies and Tactics" theory coined by Michel De Certeau explicated the perspective of graffiti surrounding and deflecting the social order of the city. He explained in his book, "The Practice of Everyday Life," that an individual understands himself in relation to the organizational constructions. De Certeau criticized the view that an individual submissively follows the established system and rules. Instead, he proposed that an individual negotiates and maneuvers through institutional structures in ways that are not projected in their production. To illustrate the relationship between the individual and his institutional structures, he used two categories – strategies and tactics.

Strategies are structures which operate from the position of power and attempt to force certain patterns on individuals. Tactics, on the other hand, are actions from those without power who use and negotiate these spaces differently than intended. Eventually, the space of a tactic is the space reserved for the "art of the weak." What De Certeau divulged in his framework is that while strategies are instrumental in

the creation of power structures and regulations, the manner in which an individual without power operates within these structures does not always conform to these strategies. From this standpoint, graffiti appears to function as a tactic within the structural order of the city.

McAuliffe and Iveson (2011) stated that graffiti operates to create spaces for communication and responds to modification in the fabric of the city. It is then an example of a tactic from individuals who may not be in the position of power and of how they find a method to negotiate within a powerful structure. Graffiti serves to make visible the structures which have become part of the eminent expectations of visual order. It is a tactic to highlight the manner in which consumption has become normalized to the extent of its invisibility.

The existing relationship between the two is the power and the actions without the power. The less powerful can somehow communicate and freely express themselves on how they feel whether positive or negative to those in power.
The illustration below illustrates the theories on which this study is grounded.

Research Design
In this study, the researcher used the phenomenological approach to inquiry where the collection of data was done in a natural setting sensitive to people and places under study and the data analysis established patterns or themes. It gathered deep information and perceptions through inductive, qualitative methods such as interviews, discussions and participant observation, and representing it from the perspective of the research participants.

It also adopted descriptive approach to provide an

accurate portrayal of characteristics of a particular individual, situation, or group. These studies are a means of discovering new meaning, describing what exists, determining the frequency with which something occurs, and categorizing information (Miller, 2003). The focus is on participants' perceptions and experiences and the way they make sense of their lives. Field research was likewise adopted. This typically involves fieldwork in which the researcher observes and records behavior and events in their natural setting, collecting primary data, using methods such as face-to-face interviewing, telephone and postal surveys, and direct observation (http://www.businessdictionary.com/definition/field-research.html). The researcher physically went to the people, setting, or site in order to observe the subject as it normally and naturally occurs or behaves.

Research Environment
The study covered the main vicinity of Talisay City, Negros Occidental. It is 4th class city in the province situated between Silay City to the north and Bacolod City to the south.

Respondents of the Study

The study involved 27 graffitists in Talisay City who were chosen at random through referrals regardless of their personal attributes, status or group classification. After they were informed of the objectives of the study and were properly assured of the confidentiality of their identity, they voluntarily submitted themselves to the interview. In the case of minor-age respondents, permission was sought from their parents.

Data Gathering Instrument

In order to gather data related to the conduct of study, interview method was utilized. The interview questionnaire was drafted in accordance to the postulated objectives of the study.

For validity, it was shown to the three (3) professors in the doctoral program of Carlos Hilado Memorial State College who checked on the appropriateness and meaningfulness of the items in the questionnaire. The ability of the questionnaire to measure the intended purpose of the study was established prior to the conduct of interview.

The individual interview with the 27 respondents was followed-up by employing the Focus Group Discussion (FGD) for the reliability. The researchers checked on the consistency or constancy of their responses.

Data Gathering Procedure
Five (5) researchers were deployed to gather the pertinent data from the targeted respondents. Prior to the conduct field investigation, validation of the items in the questionnaire by the three (3) experts was con-

ducted. The researchers then sought permission from the respective *purok* and *barangay officials* of the identified areas in Talisay City. A short briefing to the field researchers on the ethics and procedures of research was also observed. Subsequently, the researchers personally fielded the instruments to the respondents.

The Focus Group Discussion of the researchers with the 27 respondents was held in a conducive venue set to take up confidential information. The purpose of which was to validate the respondents' responses and allow opportunity for more in-depth discussion of the graffiti phenomenon.

The data gathered were then checked and collated for the data treatment analysis.

Data Treatment Analysis

Sub-problem one to sub-problem five, frequency count and percentage were adopted.

The problems that specifically deal with the extensiveness of unauthorized graffiti in the main vicinity of Bacolod City graffiti; describe the profile of the graffitists, the most common forms/styles usually used by the graffitists; and, determine the underlying reasons for their engagement in illegal graffiti and the ideas/messages they would like to convey in their artwork.

Thematic analysis utilizing the qualitative approach was used to present and analyze data that deal with the conduct of the illegal act of graffiti, how graffitists consider their artwork, and the corrective and preventive measures the local government undertake to regulate the profuse graffiti in the main vicinity of Talisay.

Results and Discussion:

Table 1. The extent of unauthorized graffiti in the main vicinity of Talisay City

Main Streets in Talisay City	Number of Houses/Establishments Surveyed	Number of Houses/Establishments with Graffiti	%	IN
Alonso Street	17	8	47%	High
Filipina Street	62	38	61%	High
Rizal Street	39	27	69%	High
Enrique Lizares Street	55	29	53%	Moderately High
Bonifacio Street	26	19	73%	High
Lacson Street	32	16	50%	High
Felipe Lacson Street	41	28	58%	High
Zamora Street	40	21	53%	Moderately High
Magsaysay Street	46	31	67%	High
Sta. Magdalena Street	27	39	69%	High
Mabini Street	58	43	74%	High
Capital Sabi Street	41	33	80%	Very High
Burgos Street	33	27	82%	Very High
Total	517	359	69%	High

Legend: 0-20% Very Low; 21-40% Low; 41-60% Moderately High; 61-80% High; 81-up Very High

Table 1 reflects that the extent of unauthorized graffiti in the main streets in Talisay City is generally high. Three hundred sixty-six (366) out of the 517 houses/establishments surveyed have are marked with graffiti. Foremost are found in Burgos (82%) and Capitan Sabi (80%), Mabini (74%) and Bonifacio (73%) Streets. Based on the city vicinity map, these are connected areas closed to the highway and have more or less wider roads. Aside from houses, there are stores and bigger establishments with wider walls and spaces. According to the respondents, these areas are more accessible targets for them to easily get away with the authorities. Aside from that, these places are open to the public and they have wider spaces for painting or spraying. Weisel (2002) stated graffiti is commonly found within public or private properties and other places that are open to public view.

Table 2. The profile of the graffitists grouped according to the identified variables

Variables	Categories	f	%
AGE	18 years old and below	9	33%
	Above 18 years old	18	67%
SEX	Male	23	85%
	Female	4	15%
RESIDENCE	Within the city	24	89%
	Outside the city	3	11%
SCHOOL STATUS	Enrolled	12	44%
	Dropped out	15	66%
PARENTS' MARITAL STATUS	Living Together	13	48%
	Separated	14	52%
	Professional	8	30%
	Middle-Level Professional	14	52%
	Non-Professional	5	19%
MOTHER'S OCCUPATION	Professional	6	22%
	Middle-level Professional	16	59%
	Non-Professional	5	19%
	SIBLING ORDINAL POSITION		
SIBLING ORDINAL POSITION	Eldest	11	41%
	Middle Child	14	52%
	Youngest	2	7%
NUMBER OF FAMILY MEMBERS	Five and below	5	19%
	Six and above	22	81%
ECONOMIC STATUS	50 001 and higher	3	11%
	40 001 - 50 000	1	4%
	30 001 - 40 000	4	15%
	20 001 - 30 000	17	63%
	10 001 - 20 000	2	7%
	10 00 and below	0	0%
EXTENT OF ENGAGEMENT IN GRAFFITI	More than 30 times per month (very high)	0	0%
	21 to 30 times per month (high)	12	45%
	11 to 20 times per month (moderate)	9	33%
	10 times and below (very low)	6	22%

Table re-

flects the profile of the 27 graffitists in terms of age, sex. residence, school status, parents' marital status and occupation, sibling ordinal position, family size, sibling ordinal position and extent of engagement in graffiti. Based on age, 18 of the graffitists comprising 67% of the total are above 18 years old and nine (9) representing 33% of the total are aged 18 years old and below. As to sex, male graffitists are remarkably higher in number compared to female composing 85 % (23 out of 27) of the total. It could also be seen the mostly are residents of the city which correspondingly represent 89% of the total (24 out of 27) and school drop-outs taking 66% share of the total number (15 out of 27).

The grouping based on family background reveals that 14 out of the total 27 graffitists came from broken family accounting to 52% of the total and whose parents (father and mother) have semi-professional occupations accounting to 52% (for the father) and 59% (for the mother) of the total. Eleven (11) of them are the eldest in the family, 14 are middle children and two (2) are the youngest in the family. Mostly, comprising 81% (22 out of 27) belonged to a big family composed of six (6) or more members. Only five (5) graffitists representing 19% of the total came from a small family. The data on family income picture that most of the graffitist are members of the low income families with monthly revenues ranging 10 001 to 40 000 pesos embodying 70% (7% + 63%) of the total with corresponding 19 out of the total 27 graffitists.

Relative to this particular finding, the Youth Court of New Zealand (2006) identified that the youth's engagement in abuse, violence and other forms of criminal and delinquent activities is hugely determined by the action or inaction of families which may include low levels of parental support of children and young people, lack of positive male role models, lack of affection, poor supervision and monitoring which allows children and young people to form associations with antisocial peers, parental antisocial behaviour and low income.

The extent of engagement in graffiti is from moderate to high as indicated by 21 graffitists classified in categories with 11 to 30 times engagement with graffiti work every month.

Graffitists are men-in-the-street who experience satisfaction from their crude, bizarre and outlandish artwork. Their aesthetic moments spent at the hours of darkness while others are in slumber.

They relish thrill while they are being hounded by no caught by the cops or authority. That gives them a higher level of satisfaction.— and extra ordinary tension it would create. Grounded on Dewey's "Aesthetic Theory" as cited in Leddy (2013) some people admire what intensifies immediate experience. Such may simple enhancement in life, something that would add spice to what regular and already existing.

Table 3. Commonly used graffiti styles/forms

Forms/ Styles N = 27	f	%
Letterings	27	100%
Drawings	23	85%
Configurations	6	22%
Ensigns	7	26%

Table 3 shows that all of the graffitists (27 out of 27) are using letterings. They are in the form of large, swanky, stylish and fancy letters done with the use of spray paints or marker pens. Twenty-three (23) of them corresponding to 85% are using drawings. Most of the drawings can be described as a graphic representation of ideas that are chiefly made by lines and figures. Six (6) of them used configurations and seven (7) used ensigns. These graffiti styles are more intricate contours, delineations and arrangement of elements or features. According to them, they opt to use the forms or styles that are easy to render emphasizing that time element is a consideration in doing graffiti.

The graffiti forms found in different locations convey different meanings such as hostilities, fantasies, frustrations and interests. These communicative strategies may take short forms, acronyms, abbreviations, imagery and irony that bear meanings about themselves and their feelings (Graffiti Creativity, 2011).

Table 4. The ideas/messages graffitists would like to convey in their artwork

Ideas/Messages the Graffitists Want to Convey N = 27	f	%
1. "I am an artist"	7	26%
2. "Hey, don't ignore me"	8	30%
3. "I exist"	2	7%
4. "My work symbolizes my rebellion"	16	59%
5. "This is the thing I want you to know"	2	7%
6. "Catch me if you can"	17	63%
7. "I want reform in the society"	14	52%
8. Others		
"I am different"	2	7%
"Astig ko ya"	4	15%
"We're stronger than other groups"	9	33%

Table 4 indicates that the graffitists would

like to communicate varied ideas or messages their work. In item six (6), sixty-three percent (63%) correspondingly 17 out of 27 of the respondents expressed the thrill and pleasure they experience if they don't get caught by the authorities for violation. A considerable number in items four and seven (16 and 14 out of 27) which is respectively comprising 59% and 52% of the total considered their work as an act of rebellion and called for a reform in the society. Graffitists also wanted attention from the public, exhibit their strength as individuals or groups and claim that they are artists and that the public must know it as reflected in items one (1), two (2), three (3) and eight (8).

Graffiti is a complex social issue and there is a wide range of perspectives and conflicting interests between different sections of the community on its value (White 2001). Part of the problem comes from graffiti's status as both an aesthetic practice and criminal activity, with the line between art and vandalism constantly shifting (Halsey & Young 2006). The distinction between graffiti and urban art can also sometimes become blurred. While it may be completed without the property owner's consent, large scale pieces and murals are often creative and, in the view of those responsible, enhance public space (White 2001). Other types of graffiti appear to serve little purpose other than to mark or destroy public property. Some graffiti writers argue that their work has visual merit and cultural value, while opponents and critics advocate its removal from public spaces and punishment of graffiti writers (Halsey & Young 2006; White 2001).

How do they carry out the illegal act of graffiti?
Before illegal graffiti is done, a number of steps has to be observed. A graffitist should come up with his own unique and catchy graffiti design. His backpack should include the following tools: (a) brush paints, (b) gloss, (c) spray cans, (d) nozzles/caps, pens,(e) gloves, and (f) stencils. An area to be inflicted should be identified. A graffitist doesn't want to be hanging around trying to think of something. Before starting the crime, he has to take a mate. It's more fun, and then he has a lookout. He then booze to get the right courage.

The generic/conventional (i.e. declarations, markings, initials and other messages mostly use tags are quickly and repetitively applied. Ideological graffitists use tags and throw-ups. The gang graffitists usually use numbers, letters and symbols known only by gang members to mark gang territories. The latter is more

The Underlying Reasons of Graffitists' Engagement in Illegal Graffiti

1. Weakening of Family

Dysfunctional family relationship resulting to weak parental control and inadequate internal communication and premature autonomy to minor children is found to be the strongest reason why graffitists engage in illegal graffiti.

> *Kagalong sa balay. Manaug na lang ka kag magpaliwa-liwa upod sa mga barkada, enjoy ka pa.."*

> *"Pirmi man wala sa balay parents ko. Pag-abot sa balay, wala na binugnuhanay, kapoy na tanan. Gakaling-an sila mamati sa imo. Solohon mo na lang problema mo, eh..."*

> *"Cool lang na ya si papa kag mama. Wala labot kun gaano ko magwa sa kagabihon. May tagsa-tagsa man kami ya ka business. Daku naman ko. Wala hilabtanay ah."*

Studies show that children who receive adequate parental supervision are less likely to engage in criminal activities. Behavioral problems and at-risk behaviors are less likely to occur when families identify as having positive communication. Family communication plays a role in the positive development of children, teenagers and young adults (Xiao, 2011).

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2. Act of Rebellion

Most of the respondents experience the feeling of "exclusion." They're not bright, not popular, not talented, indeed a "waste." Graffiti is their way of showing they still exist and they can do something to pester and pick on you. Their rebellion led their membership to the delinquent gang and development of their delinquent career in graffiti.

> *"Matyag ko bi, ako na gid ang pinakawaay-waay nga tawo sa kalibutan. Wala ginasapak o ginabalikid man lang, ari mo ay kay painiton ko man ulo mo."*
> *"Pirmi lang ko ya nga daan gago, sila lang alam. Ti, pagago-gao na lang eh. Sin-o man bi ang mamati sa akon kung di ang pader.*

The growing gap between rich and poor has led to the emergence of "unwanted others". The exclusion of some people is gradually increasing with the accumu-

lation of obstacles, ruptured social ties, unemployment and identity crises. Studies show that the act of labelling may lead to the self-adoption of a delinquent image, which later results in delinquent activity (Limjuco, 1996).

Some graffitists responded that they are already sick and tired of the government's way of addressing their concerns. They have been demanding for reforms in the society and the most the government could give are false hopes and promises.

> *"Amo man gihapon pangabuhi ta, biskan sin-o pa na da magpungko nga pulitiko. Sa pader ko na lang sila buyayawon, wala man ko mahimo. Sin-o ang sugiran o padangatan ko sang akon mga lyamo?"*

In the book, "Graffito", Walsh (1996)noted that some graffitists view their art as a ritual transgression against a repressive political and economic order. For some artists see themselves as revolutionaries reacting against the established art market or gallery system in that art is not only that which appears in the gallery as determined by the curator. Some artists also view their creations on public and private spaces as a statement against Western ideas of capitalism and private property.

This particular finding also confirms McAuliffe and Iveson (2011) claim that graffiti is utilized by less powerful individuals as a method communicate their plight and feelings to those who are in power.

As Spooner (2003) states, 'Quite often, graffiti is about establishing place or belonging in the context of the built environment.' Boredom or the desire to engage in a counterculture can be other underlying motivations for graffiti writing. □

3. Environment and Media

Television programs and movies that depict false heroism and violence excite their aggressive energy which is then transferred to everyday life and eventually pushes them to engage in physical activities on streets..

"Lagyo, lagyo...sadya, sadya... Kanami sang thrill nga mabatyagan mo, kapin pa damu kamu gabuhat.

Daw sa sine kag mga games bala sa kompyuteran nga daw mga fugitives kami nga ginalaot kag indi madakpan…"

Research on violent television and films, video games, and music reveals unequivocal evidence that media violence increases the likelihood of aggressive and violent behavior in both immediate and long-term contexts as cited by Anderson (2003).

4. Security Need/Peer Influence

According to them, quite often the *barkada* can counterbalance or compensate for the imperfections of the family. Most of the respondents consider their group a family. Belonging to a gang can provide protection within the neighbourhood. One can continually face the threat of assault, oppression, harassment or extortion on the street or at school.

> *"Kun ara ka sa grupo, astig ka man. No fear ka, wala sang makahilabot o makapanakit sa imo. Ti kun ano ang nahimo nila, himuon mo man. Spray sila, spray man ko eh, para bala indi ka man out sa group."*

Manski as cited in Corno (2012), in a peer group everyone's behavior affects the other behavior and it is problematic to disentangle the individual's behavior from that of the reference group.

5. Show of Strength

The mark on the wall signifies territorial right or ownership. It means that a particular individual or group dominates the area. For it not to be overtaken, you indicate your symbols as many as you can.

> *"Padamu-damo, pabaskug-baskug kag padaku-daku man lang kami. Kung astig ang iban -nga grupo, astig man kami."*
> "Ang power namun, ara sa street. Dira namun ginabug- os ang amun kusog..."
> "Para ipakita nga mas may kusog kami ikumpara sa iban nga grupo kag dapat makulba-an sila sa amun."

In this light, graffiti can be a form of agression. Kendra (2015) pointed out that agression serves to intimidate others, to assert dominance and express possession.

6. Self-expression

The graffitists consider themselves as ordinary people who cannot openly express themselves to the public. Despite that, they have on-going struggle for social recognition and to represent their identities. Graffiti is their way to expel what is their minds and their desire for change.

> *"Gusto namun pagbag-o, pero paano, kag sin-o gid ang mamati sa mga parehos sa amun."*

> *"Actually, ako 'ya ma-consider nga poltical activitist. Ngaa sa wall ko gapabutyag, kay wala man kami venue nga maka-air sang amun mga hibubun-ot sa gobyerno. Indi kami kapatuga-tuga expose sang amun kaugalingon sa publiko. Sigurado, dumtan kami kag prisuhan amun padulungan."*

> *"Diri ko na-express ang akun kaugal ingo bilang artist."*

Nyammubaya as cited in (Jena, 2013), the emergence of graffiti is a clear testimony of lack of freedom of expression in the country. It also shows a deficiency of confidence in people's protection after expressing themselves.

Stowers (2007) claimed that graffiti is also a form of self-expression. The art as "writing" is a creative method of communicating with other writers and the general public. What it communicates is the artist's identity, expression, and ideas. Judgments are based solely on one's artistic ability. This type of communication is of value because it links people regardless of cultural, lingual, or racial differences in way that nothing else can.

7. Personal Satisfaction

The graffiti writers admitted that they feel good after doing graffiti. Their cravings for thrill, challenge and fulfillment are satisfied.

> "Sadya nga trip ang graffiti."
> "Enjoy gid ko 'ya. Napagbigyan ang passion for art ko."
> "Extreme nga enjoyment. Kapin pa nahimu mo ang luyag mo kag wala ka madakpan."

How do graffitists consider their work – expression of art or a form of vandalism? Why?

Graffiti is an art because it is the creation of an artist. Artists express themselves in these art pieces. It utilizes drawings and colors both of which manifest aesthetic values. It is also an expression of beauty and the public appreciates it.

Graffiti is a form of vandalism because it is against the law. It destroys property and is intended to annoy or offend the public. Yes, it does not bring benefit to the society. But it is a nicer and artistic way of expressing insurgence and public upheaval as the government manifests continued disregard to the demand for reform.

This is relative to EDMONTON's (2014) claim that graffiti is an act of vandalism. It harms local residents, organizations, businesses and property owners. It includes inscriptions, slogans or drawings placed on public or private walls or other outdoor surfaces which become a criminal offense when done without the owner's consent. If the vandalism is not removed, it can lead to more damage and create an environment in which crime can thrive. Leaving it on your property also wrongly sends the message that vandalism is okay.

What corrective and preventive measures does the local government undertake to regulate the profuse graffiti in the main vicinity of Bacolod?

There were reported cases of graffitists hounded by the local policemen and *barangay tanod*. They were apprehended but after a day or two were discharged. Warnings, rebukes and parents' conference in the case of minor committers are given. The city issued ordinance on anti-vandalism but with no specifications on how to penalize graffitists, particularly the minor offenders. At the time the study was conducted, it does not have plans, programs and any other schemes to regulate profuse graffiti in Talisay City.

White's study (2000) conducted an in-depth exploration of the graffitist and their artworks – their motivations, their messages and stories they want to convey. It further dealt with the local community initiatives in regulating the harmful acts of the graffitist. It underscored that that "doing nothing" to deal with graffiti is one reason of its proliferation.

Conclusions:

1. **Based on the analyzed results, the following were the conclusions formulated:**
2. **Graffiti is a profuse phenomenon in the city of Talisay.**
3. **The graffitist-respondents are mostly 18 years old and above, male, residents of the city, dropped-out, came from broken family, with parents having middle-level professions, belonged to bigger and low-income family.**
4. **The graffitists use a variety of forms or styles. Letterings and drawings are the most common forms for reasons that they are easily and accurately done.**
5. **The graffitists want to relay their existence, strength and pleasure in their graffiti work.**
6. **The graffitists observe plans, purpose and steps before perpetrating illegal graffiti.**
7. **The essential reasons for extensive graffiti work in Talisay City are the loosening tight of family, expression of rebellion, environmental influence and media, the need for security and peer influence, manifestation of strength, self-expression and personal satisfaction.**
8. **The graffitists consider graffiti more as a form of vandalism than an expression of art.**
9. **The City of Talisay needs stricter regulative measures to minimize and eventually eradicate graffiti in the area.**

Recommendations:
The findings and conclusions led to the following recommendations:

1. The city must impose stricter policies or ordinances with corresponding penalty that would regulate and/or prohibit illegal graffiti in the city. The policies or ordinances have to be communicated to the public. Copies of these policies and ordinances may be posted in conspicuous areas and graffiti-prone areas as reminders. The main streets in the city may be provided with censors CCTV to apprehend the illegal graffitists. The city may likewise provide designated areas or freedom walls where the graffitists can depict their work.
2. The authorities should ensure complete adherence to the set policies and accordingly, deal with this illegal graffiti through execution of report, imposition of penalties and holding of conference and value orientation with the perpetrators and their parents.
3. The local government may provide programs that would benefit the school drop-outs and teenagers belonging to low-income and broken families to

divert their attention to more worthwhile activities and teach them to become productive and fruitful members of community rather than become liabilities and burdens in the community.

4. The future researchers may use this study as a reference. They can improve this study by dealing with more social problems related to delinquency committed by the younger members of this community

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Factors to Variance in Information and Communication Technology Skill

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ABSTRACT

The research aimed to identify the influencing factors to variance in the ICT skill of the faculty members of Carlos Hilado Memorial State College main campus. The research made use of descriptive design and survey questionnaire to obtain the needed data. It utilized seventy-seven faculty members from the main campus of Carlos Hilado Memorial State College as respondents using the stratified sampling method. The results revealed that CHMSC faculty members manifested average level of ICT skill and had more adequate access to ICT. Significantly, age and subjects taught contributed to variation in faculty members' ICT capability. Factors such as age and ICT access were evidently related to ICT skill.

KEYWORDS

Information and Communication Technology (ICT), ICT skill, computer, Internet, level of access, descriptive design, variance

INTRODUCTION

The rapid pace of technology absorption has created an environment that imposes pressure on academic institutions. It revolutionizes education – its curriculum, its format, its delivery. Eventually, it has become a natural part of education.

Carlos Hilado Memorial State College, joining the race towards modernization, is resorting to the so-called "ICT capability building" as apparently shown in its ICT acquisition, curricular innovations and aligning of its program and priority towards this end. It is, however, tempered by concerns over potentially divisive aspect of this technology among its faculty members. There is this emergence and evolvement of "disparity" among them which has made "ICT adoption at CHMSC" a difficult undertaking. Despite the college efforts to stride towards technological advancements, some faculty members opt to stay behind and show resistance to change. They continue to lag behind and do not participate to the appalling call for a pedagogical shift in terms of quality professional development.

While there have been many studies that have examined technology adoption across the countries, there is a current dearth of studies that focus on workers in the field of education that account for the difference in skill, access, and utilization of these ICTs to personal and socio-economic factors.

Grounded on this supposition, the study aimed to determine the ICT capability of CHMSC faculty members in relation to selected variables namely: age, gender, marital status, access to ICT, educational qualification, nature of teaching assignment and technology ownership. The study intended to provide a clearer representation of CHMSC faculty members' skills and capabilities in using a technology-based delivery system for instruction. The data gathered from this investigation will afford the college information to develop strategies, build and implement training and development programs suitable and feasible to its present and future ICT needs.

OBJECTIVES OF THE STUDY

The research aimed to determine if age, sex, marital status, educational qualification, teaching assignment, ownership of the technology and access to ICT are latent but significant factors to variance in CHMSC faculty members' level of ICT skill.

Specifically, the study purported to answer the following questions:

1. What is the level of CHMSC faculty members' ICT skill when grouped according to age, sex, marital status, educational qualification, teaching assignment and ownership of technology?

2. What is the level of CHMSC faculty members' ICT access to computer, internet and multimedia?

3. Is there a significant difference in the level of ICT skill of CHMSC faculty members when grouped

according to the selected variables?

4. Is there a significant difference in the level of ICT skill of CHMSC faculty members when grouped

5. Is there a significant relationship between CHMSC Faculty Members' ICT Skill and ICT Access?

FRAMEWORK

Advancement in Information and Communication Technology (ICT) is laying the way to new modes of organizing and doing work (Villaluz & Khanser, 2007). Pelgrum (2001) acknowledged this when he cited how information and communication technology (ICT) has swept the globe with rapidity, having the potential to bring about an immense social, economic and political transformations. It is now redefining the way people live. This causes endless effort among professionals to join the "rat-race" if they want to keep abreast of the state-of-the art technologies and keep their skills relevant and in a high demand that will command competitiveness.

Educational systems, impacted by these ICTs, are putting premium on improving ICT use, access and utilization. Universities and colleges restructure, reengineer, and re-invent education with technology infusion in order to survive and stay ahead in an increasingly competitive international market environment. Republic Act 7722 otherwise known as the "CHED law" underscored the importance of ICT for the enrichment of teaching and learning in Higher Education Institutions (HEIs). Salgado (2000), in his article, "The State of Philippine Universities and Colleges in the Era of Globalization," highlighted the continuous demands of producing globally competitive graduates. With this, government has taken a position that technology is an imperative to global competition. Now, more than ever, schools must formulate a workable plan and strategy to maximize the use of ICTs in instruction that would assure more effective and efficient teaching and learning.

Hawkins and Oblinger (2004) theorized that technology access constitutes as one important factor in the difference of ICT skills. This conforms to Zanker's contention (2001) that technical proficiency is increasingly dependent, not on the person's ability to find information but his access to technologies. Barzilai & Zohar (2006) also emphasized infrastructure access as indicator to ICT ability.

Wellman and Klement (2000) position focused on gender roles and domestic responsibilities as considerations to Web use. They claimed that women predominantly use Internet as an activity while men as a recreation. Loh-Ludher (2007) also pointed to gender-specific issues affecting ICT utilization. Ramasamy (2007) provided confirmation to this when he included gender as a consideration in bridging ICT gap.

On the other hand, Howard et al. (2001) believed that the amount of prior experience is likely to affect online actions. According to them, people who have been Internet users for longer are expected to be better at finding information online as they have more experiences to draw on. The data also suggested that the amount of time people spend online does affect their efficiency in using the technology.

These popular discussions on the computer and Internet use provide relevant insight about the possible quantitative significance of the mentioned factors to ICT capability.

This study accepts the fact that the identified factors possibly provide a vivid picture of the existing disparity along technology use among CHMSC faculty members. The study attempts to seek information about CMHSC faculty members' level of ICT capability and the significant factors affecting it.

CHMSC is taking part in the struggle towards academic excellence. Towards this aim, its teachers have to level ahead in terms of technology use in order to be at the forefront. Beginning from the grassroots, the present investigation is pertinent.

RESEARCH METHODOLOGY

Research Design

The present study attempted to determine the ICT skill of CHMSC faculty members in relation to variables age, sex, marital status, educational attainment and teaching assignment and ownership of tech-
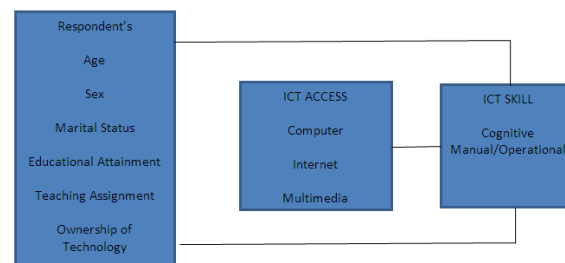

Figure 1. Framework of the study

nology. In view of the nature of research problem, descriptive type of research methodology was used.

Respondents

The study utilized 77 regular CHMSC faculty-respondents as samples employing the stratified random sampling method.

Instrument

A researcher-made survey questionnaire was used to get information related to the conduct of this study. The first part of the questionnaire contains fields that present basic personal information about the respondents. The questionnaire proper is divided into two (2) components which evaluated the level of CHMSC faculty members' ICT skill and access.

The questionnaire was subjected to face and content validation by ICT and education experts composed of three (3) professors in the doctoral program of CHMSC and two (2) ICT professors with a master's degree. The researcher used the test-retest method to examine the reliability of the questionnaire.

Data Gathering Procedure

A letter of request approved by the office of the vice-president for academic affairs and the deans of different colleges in the four departments of CHMSC was secured for the conduct of the survey. The researcher personally administered the instrument and provided a ten-minute briefing before the respondents answered the questionnaire. They were informed of the purpose of the survey and assured that their responses shall be treated with high confidentiality. All of the data gathered were then collated, treated and analyzed in accordance to the research design and aforecited hypotheses of the study. Appropriate statistical software was used for a more efficient, affective and accurate treatment of data.

Treatment of Data

Mean was used to determine the faculty members' level of ICT capability and access. T-test was utilized to ascertain the significant difference in their level of ICT capability when grouped according to age, sex and marital status. The grouping based on educational, qualification, teaching assignment, ownership of technology and ICT access made use of ANOVA.

The testing for the significant relationship between the faculty members' level of ICT skill and access required the use of Pearson Product Moment Coefficient of Correlation.

RESULTS AND DISCUSSION

CHMSC Faculty Members' Level of ICT Skill

Table 1. Level of CHMSC faculty members' ICT skill when grouped according to selected variables

CHMSC faculty members' level of cognitive and manual/operational skills in ICT according to groupings of age, gender, marital status, educational qualification and teaching assignment is generally

average with mean scores ranging from 2.73 to 3.44. A slight deviation, which is lower than the average, is

CHMSC FACULTY MEMBERS	Cognitive	IN	Manual	IN	TOTAL	IN
A. Age						
Younger	3.4	AVE	3.25	AVE	3.325	AVE
Older	2.2	LOW	2.3	LOW	2.25	LOW
B. Gender						
Male	3.03	AVE	2.94	AVE	2.985	AVE
Female	2.73	AVE	2.73	AVE	2.73	AVE
C. Marital Status						
Single	3.1	AVE	3.22	AVE	3.165	AVE
Married	2.8	AVE	2.76	AVE	2.78	AVE
D. Educational Qualification						
Baccalaureate	2.85	AVE	2.85	AVE	2.85	AVE
With Masteral Units	2.33	LOW	2.38	LOW	2.355	LOW
Masterate Degree	3.28	AVE	2.94	AVE	3.11	AVE
With Doctoral Units	3.44	AVE	3.44	AVE	3.44	AVE
Doctorate Degree	2.85	AVE	3.00	AVE	2.925	AVE
E. Teaching Assignment						
Academic	3.68	HIGH	3.58	HIGH	3.63	HIGH
Vocational	3.00	AVE	3	AVE	3.00	AVE
Academic with Designation	4.54	VERY HIGH	4.6	VERY HIGH	4.57	VERY HIGH
Vocational with Designation	4.27	HIGH	4.09	HIGH	4.18	HIGH
F. Ownership of Technology						
Less Adequate	1.94	LOW	1.81	LOW	1.88	LOW
Adequate	2.96	AVE	2.82	AVE	2.89	AVE
More adequate	3.67	HIGH	3.83	HIGH	3.75	HIGH

manifested by the faculty members belonging to the older group and those classified with masteral units; while those handling academics manifested high level of ICT capability. Apparently, faculty members' manifested cognitive skills acceded with their manual skills as presented by more or less similar results in the mean. The results clearly show that 41 to 60 percent of the ICT skills are learned, acquired and applied by the faculty members in accomplishing their school and office-related tasks.

CHMSC Faculty Members' Level of ICT Access

Table 2. Level of CHMSC faculty members' ICT access

ICT	Mean	Interpretation
Computer	3.94	More Adequate
Internet	3.84	More Adequate
Multimedia	3.66	More Adequate
Total	3.81	More Adequate

The mean of 3.81 shows that CHMSC faculty members' access to ICT is more adequate. This means that they have 61% up to 80% access to computer, Internet or multimedia at home, in school or through rental; and these ICTs are generally obtainable or reachable.

This is a manifestation that the college is joining the stride towards technological advancement through purchase or acquisition of technologies essential in the preparation of their instruction or teaching-related tasks. As Valisno (1993) put it, educational institutions must equip the individual with knowledge and skills to help him respond to the changing needs and conditions of the surrounding environment. Bolt and Crawford (2000) also recognized the impact of ICT in the new evolving roles of both teachers and learners.

Significant Difference in the ICT Skill of CHMSC Faculty Members Grouped According to Selected Variables

Table 3. Test of significant difference in the level of ICT skill of CHMSC faculty members when grouped according to selected variables

The results show no remarkable difference when grouping was based on gender, marital status

FACULTY MEMBERS	Mean	SD	P-Value	Interpretation
A. AGE				
Younger	3.325	1.08	.00001	Significant
Older	2.25	.89		
B. GENDER				
Male	2.985	1.08		Not
Female	2.73	1.10	.09	Significant
C. MARITAL STATUS				
Single	3.165	1.44		Not
Married	2.78	1.04	.32	Significant
D. EDUCATIONAL QUALIFICATION			P- Value	
Baccalaureate	2.85	1.53		
With Masteral Units	2.355	.94		
Masterate Degree	3.11	1.03	.869	Not Significant
With Doctoral Units	3.44	.86		
Doctorate Degree	2.925	.86		
E. TEACHING ASSIGNMENT				
Academic	3.63	1.20		
Vocational	3.00	.79		
Acad w/ Designation	4.57	1.06	.00463	Significant
Voc with Designation	4.18	.81		
F. Ownership of Technology				
Less Adequate	1.88	.44		
Adequate	2.89	.45	.015	Significant
More Adequate	3.75	.38		

and educational qualification. The generated P-values of .33, .345, and .869 respectively exceeded .05. Accordingly, this led to the acceptance of the null hypothesis.

The study of Wilson (2000) empirically investigated such refined understanding of digital divide by exploring differences in Internet users' online skills and found out that gender has no influence on how people are able to navigate efficiently the content of the web.

Gender, marital status and educational quali-

fication are however considered as indicators to level of ICT skill in Wellman and Klement's study (2000). Barzilai (2006) contended that these identified socio-demographic factors can potentially create gap in technology skill and access. Quibria, et. al. (2002) believed that education plays a critical role in the acquisition of ICT capability.

The grouping based on age, teaching assignment and ownership of technology gave out contrasting result. Evidently, younger faculty members, those with designation and those who own more adequate technology showed better ICT capability as compared to older faculty members, faculty members without designation and with less adequate ownership of the technology. Distinguished difference could be attributed to the adaptability of younger faculty members to ICT and the accessibility to ICTs of those faculty members with designation. Their P-values of .0000042 and .00463 respectively do not exceed the .05. With this result revealed, the null hypothesis stating significant difference in the ICT capability of older and younger faculty members is therefore, rejected.

Silver (2001) and Nahon (2006) emphasized age as a factor to ICT utilization. Wilson (2007) explored the generational difference in Internet users' online skills and found that younger people are quicker than older people in finishing tasks with the aid of computer or internet. Meanwhile, Nielsen and Netratings (2004) expressed the importance of the type of job and nature of work on the prediction of this divide.

The abovementioned studies confirm the validity of using age and teaching assignment as relevant factors to level of ICT capability. To broaden its scope, ownership of technology was included as additional variable.

Significant Difference in the ICT Skill of CHMSC Faculty Members Grouped According to ICT Access

Table 4. Test of significant difference in the level of ICT capability of CHMSC faculty members when grouped according to ICT access

ICT ACCESS	ICT SKILL (Mean)	P- Value	Interpretation
Not Adequate	1.625		
Less Adequate	2.04		
Adequate	2.79	.0000000107	Significant
More Adequate	2.98		
Most Adequate	3.9		

A marked difference in CHMSC faculty members' ICT skill is reflected when grouped according to ICT access. The higher the level of ICT access, the higher the level of ICT capability. This is showing that ICT access can affect the acquisition of the ICT capability. The P-value of .000000107 is far lower than .05 level of significance hence, the null hypothesis stating no significant difference when respondents are grouped according to access is rejected.

Hawkins and Oblinger (2004) theorized the differences in online skills - the ability to efficiently and effectively find information on the Web – may be due to lack of technology access, though it may not necessarily solve the disparity in technology use as there are other factors that may influence it. Strengthening this claim, Zanker (2001) noted that one's technical proficiency is increasingly dependent not only on his ability to find information and analyze materials but on his access to technologies.

**Significant Relationship Between
CHMSC Faculty Members' ICT Skill and ICT Access**

Table 5. Test of significant relationship between ICT skill and ICT access
The obtained computed value of .756 is far above the set tabular value of .2246. This means that

ICT ACCESS	ICT SKILL (Mean)	Computed Value	Interpretation
Not Adequate	1.625		
Less Adequate	2.04		
Adequate	2.79	.756	Significant
More Adequate	2.98		
Most Adequate	3.9		

ICT capability and ICT access are significantly related, and consequently one influences the other. Adequate ICT access results to adequate ICT skill, hence a factor to acquisition of better ICT capability.

This specific result provides confirmation to Fong's standpoint (2001) citing that differences in the availability of new technologies create disparity in skill. He furthered that as a first-order cut, the digital divide can be divided into differences between developed and less-developed countries in computer and internet access.

Based on this result, the null hypothesis stating the absence of a significant relationship between the ICT access and ICT skill is rejected.

The current investigation focuses on ICT skill and access as important components of ICT capability. There are conflicting notions on identifying several factors that result to imparity in technology skill and access. This study accepts the fact that these factors may provide a more vivid picture of the divide existing among CHMSC faculty members in terms of ICT capability but may not clearly represent other institutions within and outside the country due to divergence in the surrounding conditions and distinction of institutional features and characteristics. The theories, concepts and studies cited above were used as bases in the formulation of comprehensive model and framework of this study.

CONCLUSIONS

CHMSC faculty members' may have satisfied the basic ICT skill requirement however, it needs to be further improved. Age, teaching assignment and ownership of technology essentially cause variance to CHMSC faculty members' level of ICT skill. The difference in ICT access can result to difference in ICT skill. Better ICT access may bring about better ICT skill. Furthermore, age, technology ownership and access are seen to be important factors to ICT skill. They significantly contribute to the presence or absence, adequacy or inadequacy of ICT skill. Carlos Hilado Memorial State College must therefore augment commitment towards technological advancement in order to keep pace with the requirements of the time, to survive and stay ahead in a globally competitive world.

RECOMMENDATIONS

The college should assess its current status along ICT development. Accordingly, it has to formulate and implement feasible programs and projects that will bolster the teachers' proficiency in the utilization of ICT for instruction. Grants and assistance can be provided to equip teachers with proper training for ICT skill development and at the same time provide them 100% access to technology.

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BARANGAY GOVERNANCE AND COMMUNITY DEVELOPMENT

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ABSTRACT

This study aimed to determine the performance of the barangay officials according to their influence in in the barangay governance as well as in the community development in the fifteen barangays (15) of the Municipality of Tupi, South Cotabato.

This study employed the normative, descriptive correlation research method. The data was gathered using a two-part survey questionnaire. In preventing biases. This study also utilized an unstructured interview in eliciting other information to fully gather the needed data. Analysis of Variance (ANOVA) was utilized in determining the significant relationship of the barangay governance and community development; testing its hypothesis at 0.5 level of significance. Tukey's HSD Test for post ANOVA Pair-wise Comparisons of HSD (0.5) = 0.23 was likewise utilized in gauging further the significant relationship of the barangay governance and community development. Likewise, to validate some data, Focus Group Discussion (FGD) was also done.

Findings revealed that the barangay governance performance, in terms of police power and the power of eminent domain, was found to be satisfactory. Likewise, a very satisfactory performance was revealed when comes to the power on taxation.

Using the ANOVA on testing the perception of the respondents regarding the community development as influenced by the barangay governance, the results revealed that there was a significant relationship between the aforesaid concerns, but to a moderate degree only.

This study further revealed that the barangay officials were doing great in their responsibilities, despite the challenges and pressures in the leadership. It was proven that barangay governance did really affect the development of the community with its economic, social, political as well as the physical aspects of development.

The findings of this study are considered as baseline data for coming up programs and projects for the improvement of the services afforded to the community by the barangay officials.

Keywords: Barangay governance, community development, police power, power of eminent domain, power of taxation.

INTRODUCTION

Under the Local Government Code (1991), Section 5, the barangay officials are given more power in accelerating economic development and upgrading the quality of life for the people in the community.

However, observations show that not all barangays are enjoying the same privileges and support from the national governance for development purposes of their community.

This study is trajectory to measure the effectiveness of the services given by the elected officials to the community, particularly in the 15 barangays in the Municipality of Tupi, South Cotabao.

STATEMENT OF THE PROBLEM

This study primarily assessed the performance of the barangay officials regarding their governance and in their influence to the community development.

In particular, this study seeks to answer the following:

1. What is the level of performance of the barangay officials in terms of:

police power
    power of eminent domain
    power of taxation
What is the level of community development as influenced by the barangay governance in the areas of:
    economic aspect
    social aspect
    political aspect
    physical aspect
Is there a significant relationship between the barangay governance and community development?

RESEARCH METHODOLOGY

The descriptive correlation research design was employed in this study to sufficiently describe the relationship of the barangay governance and the community development.

This study was conducted among the 388 constituent-respondents, through non-random sampling, but the inclusion of the barangay officials, being part of the constituents in the barangay, was done purposively through complete enumeration process.

This study was conducted in the fifteen (15) barangays of the Municipality of Tupi, South Cotabato, which is about forty-five minute ride away from the City of Tacurong. This municipality is located between the Municipality of Polomolok and the City of Koronadal. During the day and even in the evening, there seems to be the same cold temperature. In fact, some people tag the Municipality of Tupi as the "*little Baguio*". Besides, having the inclement weather, this municipality is also blessed not only with abundant vegetation, but with beautiful scenic spots for tourist attraction, like in Barangay Acmonan, particularly in Sitio Le-ing, there is a *hot spring*. Likewise, Barangay Linan is known for being a *tarsier sanctuary, etc.*

This study utilized a two-part questionnaire, which was adapted from the study of Ayco (2000), but it was slightly revised to suit the needs of the study, after a thorough deliberation before the members of the committee. In preventing biases, this study also utilized an unstructured interview in eliciting other information to fully obtain the needed data. Analysis of Variance (ANOVA) was utilized in determining the significant relationship between the barangay governance and community development; testing its hypothesis at 0.5 level of significance. Tukey's HSD Test for post ANOVA Pair-wise Comparisons of HSD (0.5) = 0.23 was also further used to gauge the relationship between the barangay governance and community development.

RESEARCH PROCEDURE/GATHERING OF DATA

In gathering the data, the researcher had chosen deliberately the respondents since the barangay officials and *purok$_1$* leaders are also members of the households. In as much as there were some questions which could hardly be understood by the respondents, the researcher then used the respondent's language and explained such query/ies.

Before the conduct of the survey, the researcher secured the Mayor's permit as well as courtesy call in the office of the respective barangay captains was also done. Then, the researcher personally administered and retrieved the duly answered survey questionnaires.

STATISTICAL TREATMENT OF DATA

The data gathered were encoded for statistical computations and analysis. The profile data were computer programmed for frequencies and percentages. Analysis of Variance (ANOVA) was utilized in determining the significant relationship between the barangay governance and community development; testing its hypothesis at 0.5 level of significance. Tukey's HSD Test for post ANOVA Pair-wise Comparisons of HSD (0.5) = 0.23 was also further used to gauge the relationship of between the barangay governance and community development.

SUMMARY OF FINDINGS

The barangay governance in terms of *police power*, as well as, its *power of eminent domain*, the respondents perceived these to be *satisfactorily* performed, having the computed mean of 3.39 and 2.96 respectvely. While the barangay governance in terms of *taxation*, was found to be *very satisfactorily* observable, having the mean of 3.69. However, this study revealed that in terms of community development, the respondents assessed its economic development to be *fairly developed* (mean=3.0). While social development, having the computed mean of 3.8, and political development; having the computed mean of 3.49, as well as, the physical development (mean=3.21) were perceived by the respondents to be *moderately developed*. This further implies that the respondents viewed that social, political and physical development are interdependently contributory factors toward community development.

On the other hand, with the computed value of r = 0.54 for *barangay governance and economic*

development; r = 0.57 for *barangay governance and-social development;* and r = 0.54 for *barangay governance and political development*, these computed

_____ *purok ₁ – the smallest political unit of the barangay*

purok value of **r** signifies that there is a *moderate relationship* between barangay governance and among the forms of development in the community. This is being revealed with the computed value of r *which is greater than the tabulated value of r = 0.087* at level of significance equal to 0.5. In addition, as shown in the Analysis of Variance (ANOVA), with the computed F-ratio of 17.99, which is greater than the tabular value of 2.54 at .05 level of significance, *barangay governance is related significantly with respect to community development. With this* significant finding, the Tukey's HSD Test for post ANOVA Pair-wise Comparisons of HSD (0.5) = 0.23 * *significant,* further exhibits how closely each variable relates significantly to one another.

Having the computed F-ratio of 17.99, which is greater than the tabular value of 2.64 at .05 level of significance, this study revealed that there is a *significant relationship* between the barangay governance and community development.

BARANGAY	NO. OF HOUSEHOLDS	ACTUAL
1. Acmonan	926	28
2. Bololmala	684	21
3. Bunao	767	23
4. Cebuano	1,136	34
5. Crossing Rubber	689	21
6. Kablon	1,093	33
7. Kalkam	304	9
8. Linan	574	17
9. Lunen	469	14
10. Miasong	755	23
11. Palian	562	17
12. Poblacion	2,847	85
13. Polonuling	1,393	42
14. Simbo	312	9
15. Tubeng	493	13
TOTAL	**N=12,943**	**388**

As shown in Table 1 above, there were three hundred eighty eight (388) total number of respondents, who were chosen through non-random sampling from the fifteen (15) barangays of the Municipality of Tupi, South Cotabato.

The preceding data in Table 2 present the respondents' perception on Barangay governance in

Table 2. Performance of Barangay Officials in Terms of Police Power

Indicators	Means	Interpretation
1. The Barangay officials are present at all times in all barangay programs.	3.98	Very satisfactory
2. Health and safety are the major Concerns of the barangay officials.	3.89	Very satisfactory
3. Provide free medical assistance with vehicle in times of emergency	3.39	Satisfactory
4. Provide enough garbage disposal	3.01	Satisfactory
5. Distribute free seeds and fertilizer to the farmers.	2.74	Satisfactory
6. Conduct a regular seminars regarding drugs and AIDS awareness.	3.38	Satisfactory
7. Provide buying station for the product of the farmers.	2.45	Fair
8. Fairly serve the community regardless of tribe and belief.	3.81	Very satisfactory
9. Secure the entire barangay through the barangay tanods.	3.88	Very satisfactory
10. Provide regular road maintenance	3.32	Satisfactory
Grand Mean	**3.39**	**Satisfactory**

terms of *police power*. Having the computed mean of 3.39, it reveals that the barangay officials performed *satisfactorily*. It is implied then that the barangay officials are so concerned with the wholistic living condition of the people, living together in a peaceful community. This further states that *police power* remains the priority and that barangay officials never neglect their responsibilities to the community amidst the challenges and pressures of their leadership. Palmiotto's and Unnithan's (2011) study confirms that through positive application of police power, this can provide safety measures and prevent crimes in the community. Parallel to this, Sarat (2004) once said that the cooperation of each other, promotes health, peace and order in the community. The committed barangay officials contributed a lot by doing their part and role as officers in the community.

Table 3. Performance of Barangay Officials in in Terms of Power of Eminent Domain

Indicators	Means	Interpretation
1. Purchase private land area for rent of public business.	2.5	Fair
2. Owners of the private land are paid with right amount.	2.8	Satisfactory
3. Inform ahead the persons whose land needed for Government use.	3.39	Satisfactory
4. Relocate for free land area to those who Are victims of calamities.	2.8	Satisfactory
5. Provide farm road.	3.33	Satisfactory
Grand Mean	**2.96**	**Satisfactory**

Table 3 above shows that all indicators, except number 1, (2.5= *fair),*are evaluated as *satisfactory with indicator* number 3, having the computed mean of 3.39 as the highest. With the general mean of *2.96 = satisfactory,* this implies that the barangay officials are really performing their responsibility as mandated in Article XII, Sec. 18 of the Constitution, the Bill of Rights states that local government can take or claim land area for government use, provided that such area that would be used has really an urgent purpose, such as expansion of road, relocation for road and for satellite market.

Table 4. Performance of Barangay Officials in Terms of Power of Taxation

Indicators	Means	Interpretation
1. Regular collection of taxes in all Barangay Properties.	3.68	Very Satisfactory
2. Regular pay for all legal paper asked from the barangay.	3.82	Very satisfactory
3. Regular collection for all water service fees.	3.3	Satisfactory
4. Lead in the community maintenance on cleanliness.	3.64	Very satisfactory
5. Provide electrification for the community.	3.69	Very satisfactory
Grand Mean	**3.63**	**Very Satisfactory**

As shown in Table 4, in terms of the *power of taxation*, barangay governance is rated as *very*

satisfactory, having the computed grand mean of *3.63* ,though indicator number 3, *regular collection for all water service fees,* having the mean of 3.3, falls into as *satisfactory* performance of the barangay governance. But still the local government tried to improve tax collection in the community. Lazar (2002) signifies the real part of the national down to the local governance to collect revenues from the constituents that will be plowed back for the community development program. However, 1987 Philippine Constitution sets limitations on the exercise of the power of taxation. As gleaned in the data above, this implies that the barangay supported the national government on collecting the revenues on regular basis.

With the analysis of variance (ANOVA) as shown in Table 5 on the previous page, indicates that there is a *significant relationship* between barangay

Table 5. Analysis of Variance (ANOVA) of the Aspects Community Development

Variables	Means	F-ratio	Interpretation
Economic Development	3.00	17.99	significant
Social Development	3.83		
Political Development	3.50		
Physical Development	3.21		
Ftab(3,385;.05) =	2.64		

governance and community development, since, the computed F-ratio of 17.99 is greater than the tabular value of 2.65 at .05 level of significance.

The respondents gave higher attention on the social development of the community. However, results reveal that political development is greater than economic development. It is interpreted that the economic development of the community is dependent on the political development of the community. There is a *significant relationship* between economic development and political development, showing that political development is greater than economic development. In like manner, results reveal that Economic Development and Physical Development have

no significant relationship. The Physical Development of the community does not affect the Economic Development of the community. The Physical structure of the community is product of having sound social relationship of the barangay officials as well as in the community. Honest and Godly politics can uplift the life of the residents in.

This implies that economic, social, political and physical development of the barangay governance is *related significantly* with respect to community development. This implies further that the absence of one factor, may it be social, economic, political or the physical and there wound no sound community development.

With the aforesaid significant finding, it is further shown how each factor interrelates one another as shown in Table 6 below.

Table 6. Tukey's HSD Test for post-ANOVA Pairwise Comparisons
Table 6 above exhibits the computed Tukey HSD Test for post-ANOVA HSD-Honest Significant Differ-

Variables	Means	3.00	3.83	3.50	3.21
Economic Development	3.00	--	0.83*	0.50*	0.21
Social Development	3.83	--	--	0.33*	0.62*
Political Development	3.50	--	--	--	0.29*
Physical Development	3.21	--	--	--	--
HSD(.05) =	0.23	*	significant		

ence, showing how closely each variable relates to one another.

As indicated above, the multiple comparisons of means using Tukey's Honestly Significant Difference (HSD) be understood that should the difference between the two compared means is greater than the computed HSD, 0.23, then it is considered *significant*. It means that the other is really higher or lower than with respect to the other. From the data presented in the said table, it is observable that there are three pairs of comparisons which resulted to as significant. Disregarding the signs, these are the values marked with asterisk.

Hence, it is obvious that the *Social Development* having the mean of 3.83 is greater *that Economic Development* which is having the mean of 3.0, The respondents gave higher attention to the *Social Development* aspect of the community. This further encourages a harmonious relationship among the barangay officials within their council and this would be extended to the community by giving fair treatment, regardless of tribe, beliefs and status.
There is a *significant relationship between economic development* and *political development*, having the mean of 3.50, which is greater than the economic development (3.0). This implies that economic development is dependent on the political development of the community. On the other hand, *physical development* does not affect the economic development of the community, though the physical structure of the community is the product of having sound social relationship of the barangay officials as well as in the community. It gives peace and happiness to everyone in the community.

CONCLUSION

The following conclusions were drawn from the research findings:

In terms of *police power* and *power of eminent domain*, barangay officials performed *satisfactorily*, but they performed *excellently* in terms of the power of taxation.

As influenced by the barangay governance, the economic and physical aspect of development in the community, these are found to be *fairly developed*. Both social, as well as, the political aspect of development are perceived to be *moderately developed*.

There is a prevailing *significant* but only *moderate relationship* between barangay governance and all the four (4) aspects of community development; economic, social, political and physical development.

With the computed F – ratio of 17.99, greater than the tabular value of 2.64, which is set at .05 level of significance, the study revealed that there is a significant relationship between barangay governance and community development.

RECOMMENDATION
Through appropriate education or workable programs, police power and the power of eminent domain should be strengthened.

Giving of incentives and certificates to the residents, who afforded their income tax to the barangay, is highly encouraged.

To help uplift the economic living of the people, regular livelihood training programs and hiring experts should be done regularly.

Encourage social support from other barangay officials/leaders and from the community people, thereby promoting their commitment and positive attitude towards any projects initiated for the

For the physical development of the community, projects should be prioritized according to the immediate needs of the locality, and budget be allocated therein.

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SOLIDARITY AMONG THE TRI-PEOPLE IN THE PROVINCE OF SULTAN KUDARAT

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ABSTRACT

CONTENT ANALYSIS

OBJECTIVES AND SCOPE
This study evaluated the existing solidarity among the Tri-people of Barangay Mayo in Columbio, Sultan Kudarat for School Year 2012-2013.The tri-people are the cultural groups included in the study; the B'laans, the Maguindanaons and the Settlers which comprise Ilocanos, Pangasinens, Hiligaynons, Cebuanos and Bicolanos who are residing in Barangay Mayo, Columbio, Sultan Kudarat. Findings of which served as bases for having peaceful relationship among the tri-people.

METHODOLOGY
This descriptive-comparative design was employed in the study in line with the exploration of the existence of solidarity among tri-peoples of Barangay Mayo, Columbio, Sultan Kudarat. The people's perceptions of various elements in their community life were gathered through various methods.
In conducting the study, the researcher had a one month daily visitation in the community.
The following instruments were utilized in gathering the data: Interview of Key Informants, Focus Group Discussions (FGD's) and Questionnaires.
Three FGD's were conducted in the community. The purpose of this was to surface the people responses which may not have been expressed or clarified in the questionnaires. The first group was comprised by young and old Christians. The second was composed of the young and old Muslim-Maguindanaons. The third group comprised of young and old Lumads who were the B'laans. Hence, the data were being recorded and transcribed by the researcher. During the Interview of Key Informants, the researcher used structured and non-structured interviews depending on the interviewees and accordance with the demands of the situation. All interviews were conducted in Filipino language. On the other hand, the survey questionnaire was employed in gathering the data about the profile of the respondents and their vision of peaceful and developed community, attitudes and practices and their perceptions of the various factors like schools, leadership, assistance given, etc.

CONCLUSION
The Maguindanaon respondent is female married, between 25-29 years of age and an elementary or high school graduate. The B'laan respondent is either male or female, between 15-19 years of age, and an elementary undergraduate. The settler respondent is female, married, an Ilocano or Ilongo, a high school graduate, a Roman Catholic, a farmer and lived in Barangay Mayo for more than 15-20 years.
The respondents' vision of a peaceful community wherein there is the presence of respect, good relationship among people in the community; where there is unity, harmony, understanding and cooperation and where there is sustainable management and disciplined leadership.
The attitude and behaviour of respondents towards cultural solidarity were perceived to be helpful to a great extent by all three groups of respondents.
The community values and practices towards solidarity are perceived to be very visible.
The NGO assistance in the community was perceived to be helpful to a great extent by the Christian, Muslim and B'laan respondents. The item with the relatively highest mean was NGO's material assistance like food, clothing, etc. were deemed most helpful.
The Government Organization Assistance was deemed helpful to a great extent by the three groups of

respondents. The item with the relatively highest mean was GO's giving of development assistance like irrigation.

INTRODUCTION

RATIONALE OF THE STUDY

Indigenous peoples throughout the world are situated in a paradoxical context. On one hand, institutions and policies have marginalized them by putting them at the periphery of mainstream society and economy; thus, there is an increasing empathy for them. Many are of the stance that the development path being observed by them is not sound but that their own indigenous cultures may offer lessons for the survival of humankind. The social and environmental destruction of indigenous peoples by development strategies is a well-documented fact. The erosion of the strength of the indigenous cultures may actually affect mainstream society. The weakening of the indigenous societies and the accompanying process of impoverishment have been brought about by a complex multitude of factors which include colonialism, disruption of the traditional economy, modernization, social and environmental degradation due to inappropriate development schemes.

In the Philippines, recent United Nation Organization (UNDP-ILO) Missions revealed that the country's indigenous peoples representing seventeen (17) percent of the total population are among the poorest and the most disadvantaged social groups in the country.

According to Rodil (1984), though they are masters of their own lives, majority of the indigenous peoples are poor and landless which resulted to population pressures and resettlement moving the majority far remote. Furthermore, of the estimated 73 million national total populations of the Philippines, the indigenous peoples now are known officially as Indigenous Cultural Committee which is also popularly referred to as Cultural Minorities.

On the other hand, Saber (1978), in his ethno historical research stated that the Christians, Muslims and Indigenous Filipinos whose race of origin are generally mixed Malay and Indonesian stocks were once pagans or animists before Christianity and Islam have been heard. Moreover, according to Saber (1974), series of wars and battles due to Spanish program of Christianization of the Muslims and Indigenous peoples have always been the flavor of the past decades.

Nevertheless, with the independence of the country, the Republic of the Philippines, according to Sharma (1984), has made concerted efforts to accelerate cultural integration and to promote cultural unity in terms of social, economic and as well as educational programs.

The need to share a grief or pain as stipulated by Garcia (1988), the start of solidarity, courage and strength has to be mustered to transform the suffered mourning into a brighter tomorrow and a promised solidarity.

Barangay Mayo of Columbio, Sultan Kudarat which is the center of the study was named after Datu Manumpa Mayo, a B'laan chieftain whose tribe historically resettled at the boondocks of the area since time immemorial. The influx in the B'laan community by the Muslim Maguindanaons was due to its proximity which adjoined them within only one-half kilometer. Thus, intimacy and camaraderie among the two ethno linguistic groups were developed.

Right now, the place has seven-hundred household of which 40% are B'laan, 30% are Christians and 30% are Muslims. Mayo is geographically situated at the northern part of Datu Paglas, Maguindanao.

Therefore, tri-people are the cultural groups included in the study; the B'laans, the Maguindanaons and the Settlers which comprise Ilocanos, Pangasinens, Hiligaynons, Cebuanos and Bicolanos, who are residing in Barangay Mayo, Columbio, Sultan Kudarat.

STATEMENT OF THE PROBLEM

This study evaluated the existing solidarity among the tri-people of barangay Mayo in Columbio, Sultan Kudarat.

Specifically, it focused on following questions:
1. What is the profile of the respondents in terms of the following:
   1.1 sex;
   1.2 age; and
   1.3 tribe.
1. What is their vision of a peaceful and developed community?
2. What are their attitudes and practices towards solidarity?
3. What are their community values and behavior towards solidarity?
4. What GO and NGO assistance have they received in their barangay?

RESEARCH METHODOLOGY

RESEARCH DESIGN

The descriptive-comparative design was employed in the study in line with the exploration of the existence

existence of solidarity among the tri-peoples of Barangay Mayo, Columbio, Sultan Kudarat. The people's perceptions of various elements in their community life were gathered through various methods.

RESEARCH RESPONDENTS AND ENVIRONMENT

The respondents of the study were 90 residents of Barangay Mayo in Columbio, Sultan Kudarat who were randomly selected. Young and old people belonging to the three tribal groups were considered for the FGD. From each group, Christians, Muslim-Maguindanaons and B'laans, 30 residents were taken for the survey questionnaires. The three FGD's consisted of eight (8) members each. Thus, for key informants, eight (8) smallest political unit officials and tribal leaders were taken purposively.

RESEARCH INSTRUMENTS

The following instruments were utilized in gathering the data: Interview of Key Informants, Focus Group Discussions (FGD's) and Questionnaires.

Three FGD's were conducted in the community. The purpose of this was to surface the people responses which may not have been expressed or clarified in the questionnaires. The first group was comprised by young and old Christians. The second was composed of the young and old Muslim-Maguindanaons. The third group comprised of young and old Lumads who were the B'laans. Everything were recorded and transcribed by the researcher. In interview of Key Informants, the researcher used structured and non-structured interviews depending on the interviewees and accordance with the demands of the situation. All interviews were conducted in Filipino language. Hence, the survey questionnaire was employed in gathering the data about the profile of the respondents; their concepts of peace and development; their attitudes and practices; their values and behavior; and perceptions of the various factors like schools, leadership, assistance given, etc.

RESEARCH PROCEDURE/GATHERING OF DATA

The data gathered were encoded for statistical computations. The profile data were computer programmed for frequencies and percentages of the variables for each of the three groups: the Christians, Muslims and B'laans. Thus, the vision of a peaceful and developed society and their plans and aspirations were translated also to frequencies and percentages. Other parts of the questionnaire such as; attitudes and practices, values and behavior, and other factors which influence cultural solidarity. Problems encountered were computed for means, over-all means and SD's. A three-point scale was used for analysis and interpretation.

SUMMARY OF FINDINGS

The following are the major findings of the study:

The Maguindanaon respondent is female married, a Muslim, between 25-29 years of age, an elementary or high school graduate, a member of Barangay Power Association (BPA), a farmer and has been living in Barangay Mayo for more than 25 years

Table 1a. Sex of Respondents

Sex	Settlers		Maguindanaon		B'laan	
	f	8	f	8	f	8
Female	17	56.7	17	56.7	15	50
Male	13	43.3	13	43.3	15	50
Total	30	100.0	30	100.0	30	100.0

Table 1b. Age of the Respondents

The B'laan respondent is either male or female, between 15-19 years of age, speaks B'laan, an elementary undergraduate, married, a member of La Bugal or a smallest political unit organization and has

Age	Settlers		Maguindanaon		B'laan	
	f	8	f	8	f	8
60 - up	1	3.33	1	3.33	1	3.33
55 – 59	2	6.67	-	-	-	-
50 – 54	-	-	4	13.33	2	6.67
45 – 49	5	16.67	-	-	1	3.33
40 - 44	3	10.00	3	10.00	2	6.67
35 – 39	3	10.00	4	13.33	3	10.00
30 – 34	3	10.00	2	6.67	5	16.67
25 – 29	3	10.00	8	26.67	5	16.67
20 – 24	4	13.33	3	10.00	4	13.33
15 – 19	6	20.00	5	16.67	7	23.33
Total	30	100.00	30	100.00	30	100.00

been living in Barangay Mayo for over 15 years.

Table 1c. Tribe of Respondents

Tribe	Frequency	Percentage
1. Bicolano	3	3.33
2. B'laan	30	33.33
3. Cebuano	5	5.56
4. Ilocano	6	6.67
5. Ilongo	7	7.78
6. Maguindanaon	30	33.33
7. Pangansinens	9	10.00
Total	90	100.00

The settler respondent is female, married, an Ilocano or Ilongo, a high school graduate, a Roman Catholic, a member of a smallest political unit organization, a farmer and has been living in Barangay Mayo for more than 20 years.

Table 2. Attitudes and Practices towards Solidarity

Their vision of a peaceful community is

	Settlers			Maguind-anaon			B'laan			Ave. Rank
	f	8	R	f	8	R	f	8	R	
1. There is respect, good relationship and leadership in the community	14	46.67	1	10	33.33	1	12	40.00	1	1
2. The community is away from destructive vices	2	6.67	5	2	6.67	5.5	4	13.33	4	5
3. A community is fully developed and sufficient in livelihood	1	3.33	6.5	4	13.33	4	2	6.67	5.5	6
4. A fear of God is practiced	3	10.00	4	5	16.67	3	2	6.67	2	2
5. Unity, harmony understanding and cooperation prevails in the community	4	13.33	3	7	23.33	2	6	20.00	2	2
6. Sustainable management and leadership are both enhanced in the community	5	16.67	2	2	6.67	5.5	3	10.00	4	3
7. Social and economic way of living is practiced	1	3.33	6.5	-	-	7	1	3.33	7	7
Total	30	100		30	100		30	100		

that where there is the prevailing practice of respect, good relationship among people in the community, where there is unity, harmony, understanding and cooperation, and where there is sustainable management and disciplined leadership.

Table 3. Community Values and Behavior towards Solidarity

The attitude and behavior of respondents towards cultural solidarity are perceived to be helpful

Attitudes and Behavior	Settlers		Maguinad-anaon		B'laan	
	M	SD	M	SD	M	SD
1. The members of tribal community respect one anothers' culture	3.0	-	3.0	-	2.8	.55
2. There is tolerance for the beliefs and practices of others	3.0	-	3.0	-	2.5	.63
3. There is a spirit of cooperation practiced during cultural fiestas and other celebrations	3.0	-	3.0	-	2.6	.61
4. Resolution of conflicts is channelled through tribal leaders	3.0	-	3.0	-	2.53	.57
Over-all Mean	3.0		3.0		2.61	

to a great extent by all three groups of respondents. Hence, the community values, practices towards solidarity are perceived to be very visible.

Table 4. Non-Government Organization Assistance to the Community

The NGO assistance in the community is perceived to be helpful to a great extent by the Christian, Muslim and B'laan respondents. The

Items	Settlers		Maguinda-naon		B'laan	
	M	SD	M	SD	M	SD
1. NGO's giving of livelihood/skills training	2.96	.18	3.0	-	2.56	.63
2. NGO's sponsorship of formation programs	2.83	.38	2.73	.45	2.53	.57
3. NGO's material assistance like food, clothing, etc.	3.0	-	2.96	.18	2.6	.61
Over-all Mean	2.93		2.90		2.56	

item with the relatively highest mean is NGO's

material assistance like food, clothing, etc. is deemed most helpful.

The Government Organization Assistance is deemed helpful to a great extent by the three groups of respondents. The item with the relatively highest mean is GO's giving of development assistance like irrigation.

Internal factors like residency in the area, vision of a peaceful community, positive attitudes, values and practices, harmonious relationship among the tri-people and effective leadership are key factors to cultural solidarity.

External factors deemed of support and important to cultural solidarity, are the following seen as helpful to a great extent: schools, NGO assistance, GO assistance and land.

Respondents agree that two out of the 15 problems listed are slight problems. These are poverty and underemployment.

The respondents' first three plans and aspirations are as follows: the NGOs and GOs through the local government will always support the implementation of projects for the community; the collaboration and cooperation will be sustainable development; and the community leaders will maintain their duties and functions which they have started in order to facilitate community development.

CONCLUSIONS

The following are the conclusions gleaned from the findings of the study:

The people's vision of a peaceful community is that peace is founded on characteristics which promote cultural solidarity, good leadership and respect as the core of these concepts.

Respondents' concepts of development are only partly in accord with the P.E.A.C.E model of development.

Solidarity of the tri-people in Barangay Mayo is positively influenced by both internal and external factors. These factors indeed influence the people to live in peace, harmony and development. Their solidarity is indeed strong.

The respondents' perceptions on attitudes and practices, values and behavior are mostly favorable to cultural solidarity or oneness of the community. Generally, the B'laans have less favorable perceptions on attitudes, behavior, values and practices of their community.

Respondents have over-all favorable perceptions of the GO's and NGO's assistance to the community and want these to be sustained.

Factors such as schools, relationship among the various tribes, land to till and responsible leadership were

deemed important factors for the promotion of cultural solidarity, peace and development.

The respondents did not view their community as problem-laden. Only two problems were recognized by them as minor problems for the community. They do not consider poverty and unemployment as serious problems. It seems they are relatively contented with their lives as long as there is unity and harmony among them.

Their plans and aspirations are focused on the sustainability of assistance received, on the unity of leaders and people and responsible leadership.

RECOMMENDATIONS

From the findings and conclusions of the study, the following recommendations are presented:

The Barangay leaders and members should be given Peace Education seminars, so that they will develop a more holistic and correct understanding of peace and development.

The Indigenous People should be helped to develop more positive perceptions of attitudes, values, behavior and practices of the community through a better understanding of the Muslim and Christian cultures. Exposures to these in other culture may develop greater trust and understanding.

The internal and external factors which are favorable to cultural solidarity should be enhanced so that solidarity among the people is strengthened. Their concept of development could be developed through seminars and trainings. The GO's and NGO's should review their assistance to the community with the end in view of developing self-reliance not dependence among the people.

Local government should look into the possibility of building more schools, providing land through CARP and political empowerment of leaders so that cultural solidarity, peace and development are attained.

Leaders should address the problems of poverty and unemployment which may grow serious and become seedbeds of rebellion and crimes.

Projects and programs which are needed like irrigation, adult literacy etc. should be sustained so that the community would enjoy stability and genuine development.

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Medicinal Plant Resources and Traditional Health Practices of Households in Albay Province, Philippines

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Bicol Region is one of the richest areas in the entire country in terms of biodiversity due to its mountain ranges which are home to various flora and fauna. The study aimed to assess the medicinal plants and document the utilization practices in various households. The three districts of the province of Albay were considered, each district has two sampling sites, one rural and one urban, with three barangays representing the three ecological zones, upland, lowland and coastal. Modified line plot method, backyard sampling and key informant interview were used. A total of 540 respondents were interviewed from eighteen (18) barangays. One hundred ninety (190) medicinal plant species were identified. The first district has the most diverse medicinal flora, but only a small percentage of these plants were known by households to have medicinal values. The most abundant were Musa paradisiaca (banana), Cocos nucifera (coconut), Colocasia esculenta (taro), Phyllantus niruri (sampa-sampalukan) and Manihot esculenta (cassava). The most commonly used were Blumea balsamifera (lakad bulan), for dizziness, Artamisia vulgaris (artamisa) for relapse prevention and good menstrual flow and Coleus aromaticus (oregano) for cough and colds, toothache, back pain and washing of wounds. Respondents were noted to be dependent on medicinal plants in treating common ailments but less than half of the identified species found were utilized. It is recommended that phytochemical screening of the plants be done to discover new drugs which can be used by people especially in rural areas.

Keywords: Albay Province, utilization, medicinal plants, households, traditional health practices

Introduction

For the past years the use of medicinal plants was extensively disseminated both by government and non-government organizations. Information campaigns were initiated in the form of print media, seminar-workshops and establishment of medicinal gardens towards the realization that the population will not only be informed but also that the utilization of herbal medicine will be fully maximized. Promotion on the use of medicinal plants was primarily due its being abundant not only in the Philippines but specifically in the province of Albay. Added to this is its use for common ailments especially in the rural areas where 60% of the Filipino people live below the poverty line (NEDA, 2010).

Health resources are few so that the masses have learned to rely on their indigenous resources. Aside from this, medicinal plants are cheaper compared to commercial pharmaceutical preparations.

Albay province is located at the southern tip of Luzon Island and about 550 km. from Manila. Albay is approximately 13 to 13.5 degrees latitude and 123.25 degrees east longitude. It is located between the provinces of Camarines Sur on the north and Sorsogon on the South. It is bounded on the east by the Pacific Ocean, on the northeast by the Lagonoy Gulf, and on the west and southwest by the Burias Pass. The islands in the north under the jurisdiction of the province are Rapu-Rapu, Batan, Cagraray and San Miguel (Espinas, 2013).

The province is composed of three (3) cities (Legazpi, Tabaco and Ligao) and fifteen (15) municipalities grouped into three (3) congressional districts, namely, first district: Bacacay, Malinao, Malilipot, Sto. Domingo, Tabaco City and Tiwi; second district: Legazpi City, Camalig, Daraga, Manito and Rapu-Rapu; and third district: Guinobatan, Libon, Ligao City, Oas, Pio Duran and Polangui.

This study was anchored on R.A. No. 8423 known as The Traditional and the Alternative Medicine Act of 1997 (TAMA). An act creating the Philippine Institute of Traditional and Alternative Health Care (PITAHC) to accelerate the development of traditional and alternative health care in the Philippines, providing for a traditional and alternative health care development fund and for other purposes.

Statement of the Problem

The study generally aimed to identify the common medicinal plants of Albay used in households and to contribute to the growing body of literature on the role of indigenous or traditional systems of

knowledge in development of the province. Specifically, it assessed the different medicinal plants present in the area and documented its utilization practices in various households.

The study provides information on the use of medicinal plants for prevention and treatment of common ailments, thus people will be educated, organized and mobilized on the use of the indigenous resources in laying the foundation of a self-reliant health care delivery.

Methodology

One city and one municipality per district were sampled and in each sampling sites, upland, lowland and coastal areas were represented.

A survey questionnaire was used and key-informant interviews (KII) were conducted in coordination with the barangay council of the identified study areas. Assistance from the barangay health workers was sought in the conduct of the sampling.

The household survey, which essentially constituted the main component of the field work, involved the use of semi-structured interviews with both men and women as household heads. Random samples of 30 households per ecological zone were considered. A total of 540 households constituted the population sampling for this study.

Backyard garden survey of available medicinal plants was identified using the available taxonomic books and other reference materials/journals and other publications.

Results were analyzed using descriptive statistics such as mean, percentage and ranking.

Findings

In the first district (table 1), a total of one-hundred fifty-three (153) medicinal plants were noted. It was observed that the top five medicinal plants with the highest frequency in Tabaco City were *Artocarpus heterophylla* (langka), *Mangifera indica* (Manga), *Ficus pseudopalma* (Lubi-lubi), *Cordieum variegatum* (Sampalok), and *Euphorbia milii* (Soro-soro) with (40.00%), (37.78%), (31.11%), (28.89%) and (25.56%) respectively. In Tiwi, Albay, the most frequently occurring plants differ from those in Tabaco City where *Moringa oleifera* (malunggay) had the highest frequency value of 35.56%, followed by *Mangifera indica* (Manga), *Manihot esculenta* (Cassava), *Musa paradisiaca* (Banana) and *Euphorbia milii* (Crown-of-Thorns) with 28.89%, 22.22%, 21.11% and 18.89% respectively.

Table 1. List of the most frequently occurring Medicinal Plants in Tabaco City and Tiwi, Albay employing backyard sampling

In the second district *Mangifera indica* (Mango) has the highest frequency in Legazpi City,

this was followed by *Ficus pseudopalma* (Lubi- lubi) and *Moringa oleifera* (Malunggay) both with 22.22%, *Blumea balsamifera* (lakad bulan) with 21.11% and

Tabaco		Tiwi	
Scientific Name	Freque ncy (%)	Scientific Name	Freque ncy (%)
Artocarpus heterophylla	40.00	*Moringa oleifera*	35.56
Mangifera indica	37.78	*Mangifera indica*	28.89
Ficus pseudopalma	31.11	*Manihot esculenta*	22.22
Cordieum variegatum	28.89	*Musa paradisiacal*	21.11
Euphorbia milii	25.56	*Euphorbia milii*	18.89
Musa paradisiacal	24.44	*Ficus pseudopalma*	17.78
Psidium guajava	24.44	*Carica papaya*	17.78
Citrus microcarpa	21.11	*Artocarpus heterophylla*	17.78
Pepperomia pelucida	20.00	*Psidium guajava*	16.67
Sandoricum koetjape	20.00	*Hibiscus tiliaceus*	15.56
Theobroma cacao	20.00	*Cocos nucifera*	14.44
Colosia esculenta	20.00	*Citrus microcarpa*	14.44

Carica Papaya (papaya) and *Musa paradisiacal* (saging) both 20%. The least frequent plants were *Cansium domesticum* Correa (Lansones), *Achras sapota* Linn (Chico), *Pouteria lucuma* (Chesa) and *Gendarussa vulgaris* (Puli) with frequency value of 1.11%.

In Manito, *Musa paradisiaca* Linn. (Batag) has the highest frequency value of 44.44% or almost 80 of the respondents interviewed have this plant at their backyard. This was followed by *Mangifera indica* (Mango) and *Cocos nucifera* (Nuyog) with 38.89% and 35.56 respectively. Some of the least frequent plant species observed in Manito were *Melastoma malabathricum* Linn. (Tonga- tuna), *Nephelium lappaceum* Linn.(Bulala), *Symphytum officinale*

(Comprey and *Cucurbita maxima* Duschne (Karabasa), all with 1.11% frequency values.

Table 2. List of the most frequently occurring Medicinal Plants in Legazpi City and Manito Albay employing backyard sampling

Legazpi		Manito	
Scientific Name	Frequency (%)	Scientific Name	Frequency (%)
Mangifera indica	38.89	*Musa Paradisiaca*	44.44
Ficus psuedopalma	22.22	*Mangifera indica*	38.89
Moringa oleifera	22.22	*Cocos nucifera*	35.56
Blumea balsamifera	21.11	*Manihot esculenta*	33.33
Carica Papaya	20.00	*Rosa grandifora*	30.00
Musa paradisiaca	20.00	*Moringa oleifera*	30.00
Coleus aromaticus	18.89	*Carica papaya*	28.89
Artocarpus heterophylla	18.89	*Cordyline frulicosa*	26.67
Psidium guajava	16.67	*Artocarpus camansi*	25.56
Sandoricum koetjape	15.56	*Colocasia esculenta*	22.22

In the third district (table 3) *Cocos nucifera, Moringa oleifera, Euphorbia milli, Musa paradisiaca, Artocarpus heterophylla* were the top five most occurring medicinal plants in Pioduran with 23.72%, 20.33%, 16.94%, 15.25%, and 14.40% respectively. In Ligao the highest was *Moringa oleifera* with 21.18% followed by *Mangifera indica* (manga,), *Musa Paradisiaca* (saging) *Cocos nucifera(niyog) and Cupressus sempervirens (cypress)* with 20.33%, 19.49%, 16.10% and 14.40% respectively.

From the top five plants, common to Ligao and Pioduran are the *Moringa oleifera (*malunggay*), Musa Paradisiaca* (saging), *and Cocos nucifera* (niyog).

Table 3. Medicinal Plants in Ligao City and Pioduran Albay employing backyard sampling

Table 4 shows the percentage utilization of the medicinal plants by the residents of Tabaco City

Pioduran		Ligao	
Scientific Name	Frequency (%)	Scientific Name	Frequency (%)
Cocos nucifera	23.72	*Moringa oleifera*	21.18
Moringa oleifera	20.33	*Mangifera indica*	20.33
Euphorbia milli	16.94	*Musa Paradisiaca*	19.49
Musa paradisiaca	15.25	*Cocos nucifera*	16.10
Artocarpus heterophylla	14.40	*Cupressus sempervirens*	14.40
Mangifera indica	14.40	*Citrofortunella microscarpa*	12.71
Morinda citifolia	13.55	*Pepperonia pelucida*	11.86
Blumea balsamifera	12.71	*Psidium guajava*	11.01
Carica Papaya	11.86	*Blumea balsamifera*	11.01

and Tiwi, Albay. A few numbers of plants are used by the residents both in Tabaco City and Tiwi, Albay and a large percentage of the plants, although known to have certain medicinal uses, are not being utilized. The coastal areas have the highest percentage of utilization, almost all the households use the medicinal plants. Of the ninety (90) respondents, eighty (80) households used medicinal plants in Tabaco City and eighty three (83) in Tiwi, Albay.

Table 4. Utilization of Medicinal Plants in Tabaco City and Tiwi, Albay

Barangay	No. of species identified	Percent utilized	No. of households using
Tabaco City			
Brgy. Tabiguian (upland)	101	27	28
Brgy. San Vicente (lowland)	104	26	23
Brgy. Fatima (coastal)	69	38	29
Total			80

Barangay	No. of species identified	Percent	No. of households
Tiwi, Albay			
Brgy. Maynonong (upland)	68	27	26
Brgy. Nagas (lowland)	118	20	28
Brgy. Bolo (coastal)	90	39	29
Total			83

In the second district of Albay, Table 5 shows that the Barangay with the most number of medicinal plants identified in Legazpi City was Dita (lowland), with 116 identified species. Only 28% of these medicinal plants were utilized by the 28 out of 30 households. In Manito, Barangay Pawa (coastal) has the most number of identified medicinal plants with 111. Malobago (lowland) has the highest percentage of utilized medicinal plant with 41%. All the respondents that were interviewed in Barangay Pawa and Malobago used the medicinal plants.

Table 5. Utilization of Medicinal Plants in Legazpi City and Manito, Albay

Barangay	No. of species identified	Percent utilized	No. of households using the Plants
Legazpi City			
Brgy. Imalnod (upland)	95	32%	29
Brgy. Dita (lowland)	116	28%	28
Brgy. Puro (coastal)	111	30%	26
Total			83
Manito, Albay			
Brgy. Pawa (upland)	111	36%	30
Brgy. Cabacongan (lowland)	97	37%	29
Brgy. Malobago (coastal)	105	41%	30
Total			89

The utilization of medicinal plants in the third district of Albay (table 6) represented by Ligao and Pioduran showed the highest utilization percentage of the plants. Cabarian and Marigondon which represented the coastal areas in both sampling sites got the highest percentage of utilization of the medicinal plants. Both the urban and rural sampling sites still use the plants before they resort to commercially synthesized medicines from the drug stores. This was noted in the interview conducted.

Table 6. Utilization of Medicinal plants in Ligao City and Pioduran Albay

Barangay	no. of species identified	Percent utilized	No. of household using the plants
Ligao			
Tastas	54	70.0	20
Tinago	62	48.4	21
Cabarian	47	97.9	23
Total			63
Pioduran			
Agol	40	72.5	28
Caratagan	60	85	26
Marigondon	40	95	30
Total			84

Table 7 shows the percentage occurrence of medicinal flora in the backyards of households in the Province of Albay. The top ten occurring medicinal plants were *mangifera indica* (manga), 31.67%, *Cocus nucifera* (nuyog), 20.19%, *Artocarpus heterophylla* (langka) 18.52%, *Musa paradisiaca* (saging), *Moringa oleifera* (malunggay) 17.78%, *Carica papaya* (Tapayas), 16.67%, *Manihot esculenta* (kamoteng-kahoy),14.63%,*Colocasia esculenta* (gabi),14.44%, *Blumea balsamifera* (lakadbulan),13.89%, and *Coleus aromaticus Benth* (oregano) with 12.59%.

Most of these plants are being cultivated not only for medical purposes but also as ornamental as well as a food source.

Table 7. Percentage occurrence of medicinal flora sampled in the backyards of households in the Province of Albay

Species	Common Name	No. of Backyards with observed species	Percentage Occurrence (n=540)
Mangifera indica	Mangga	171	31.67
Cocos nucifera	Nuyog	109	20.19
Artocarpus heterophylla	Langka	100	18.52
Musa paradisiaca	saging	99	18.33
Moringa oleifera	malunggay	96	17.78
Carica papaya	Tapayas	90	16.67
Manihot esculenta	Kamoteng-kahoy	79	14.63
Colocasia esculenta	Gabi	78	14.44
Blumea balsamifera	Lakadbulan	75	13.89
Coleus aromaticus Benth.	Oregano	68	12.59
Psidium guajava	bayabas	61	11.30
Capsicum frutescens	Sili	56	10.37
Ficus pseudopalma	lubi-lubi	55	10.19
Rosa grandiflora	Rose	53	9.81
Artemisia vulgaris	Artamisa	52	9.63
Ixora coccinea	santan	44	8.15
Ananas comosus	Pinya	42	7.78
Citrus decumana	Lukban	42	7.78
Theobroma cacao	Cacao	42	7.78

Of the one hundred ninety (190) identified plants, table 8 shows the top ten commonly used by the households and its utilization. Almost all of the plant parts are used as medicine to cure minor illnesses.

Table 8. Plant Parts Medicine and their Utilization

Scientific Name/ Common Name	Use	Parts used/ Utilization/Preparation
Mangifera indica (Mangga)	Cough, colds, kidney trouble, LBM	Decoction of leaves is used as oral tonic water for people suffering from cough and colds. Decoction of bark is for treatment of LBM
Cocos nucifera Nuyog	Kidney problem, UTI, diarrhea, skin disease, gas pain High blood	Meat and juice of the coconut is used to treat kidney problem, UTI, gas pain. Juice is used to prevent diarrhea. Decoction of young leaves is used to cure high blood.
Artocarpus heterophylla Langka	Wound	Sap is used to cure wounds.
Musa paradisiaca saging	Wound	Crushed with both hands and applied to the wound.
Moringa oleifera malunggay	Kidney trouble, colds, ulcer, fever, allergy, boils Wounds, stomach ache itchiness, , insect bites, toothache, high blood	Decoction of leaves is used for kidney trouble, colds, ulcer, fever, toothache and allergy. Pounded stem is used for poultice for stomach ache, itchiness, insect bites and boils. Fried seed is taken by mouth to prevent high blood pressure
Carica papaya Tapayas	Dog bite	The sap of the fruit is applied on affected area.
Manihot esculenta. Kamoteng-kahoy	Stomach ache	Decoction of leaf is used for treatment of stomach ache

Scientific Name/ Common Name	Use	Parts used/ Utilization/Preparation
Blumea balsamifera Lakadbulan	Cold, cough dysmenorrhea, dyspepsia, influenza, chest pain	Decoction of leaves is used as tonic drink for cold, cough dysmenorrhea, dyspepsia, influenza and chest pain. Leaf extract can be used as poultice for chest pain.
Coleus aromaticus Benth. Oregano	Cough, colds, fever, toothache, stomach ache, headache, wounds,	Decoction of leaves is use as oral tonic water to cure colds, cough, headache, stomach ache and fever. It is used to wash wound. Leaves are chopped into fine pieces and are applied in the cavity to relieve toothache.
Psidium guajava bayabas	Cough, colds, LBM, wounds, menstruation	Decoction is used as oral tonic water for cough and colds. It is use to regulate the flow of blood during menstruation. It is use for washing wounds.

Conclusions

Based from the study conducted, the following are the conclusions:

1. A total of one hundred ninety (190) medicinal plant species belonging to sixty-nine (69) families were identified.
2. The top five commonly used medicinal plants are *Blumea balsamifera* (Linn.) DC (Lakad bulan) (57.22%), *Coleus aromaticus* Benth. (Oregano) (45.00%), *Vitex negundo* Linn. (Lagundi) (27.78%),
3. Residents of both urban and rural areas were noted to be dependent on using medicinal plants in treating common ailments such as colds, body pain and rheumatism.
4. All plant parts are used as medicine to cure colds, cough, fever, stomach ache and other minor illnesses.
5. Most of these plants are being cultivated not only for medical purposes but also as ornamental as well as a food source.

Recommendations

The following are recommended:

1. It is recommended that traditional medicine campaign be conducted to the local barangays to increase the awareness of the folks as to the proper use and the dose of the plant being used as herbal medicine.
2. The local barangays may put up medicinal gardens so that this indigenous knowledge will be handed-over to the future generations.
3. In-depth researches may also be conducted; especially to some commonly used medicinal plants with few scientific evidences of its medicinal value.
4. Active components of these medicinal plants may also be identified in order to establish its usefulness and validate the safety and efficacy of the herbal remedies.
5.

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Decision Making in the Traditional *Ato* of Bontoc:
In the Lens of Public Administration

Rexton F. Chakas, Ph.D.

Abstract

The Ato of Central Bontoc, Mountain Province, amidst the backdrop of a citizenry already saturated with western influence, continues to be more than a physical depiction of the past but a living window from which to draw learning on indigenous socio-political systems. The study analyzed the power of the structure of the Ato, the indigenous views concerning the decision-making process, and the extent of practice of democratic decision making. Through the points of discussion deduced from indigenous key informants themselves, analyses were made through the concepts of public administration. The Bontoc Ato, in these terms, encompassed the democratic values of consultation, cooperative participation in decision-making, unanimity, representative government and commitment to the common good. Hinged on oral customary laws, these have molded public values today and have sufficiently sustained peace and social justice. The documented experiences are worthy of focus for integration in the curricula of all programs in higher education.

Keywords: *Ato*, Decision-making, Public Administration

Introduction

Decision making is central to any government. The whole process of arriving at one decision is important as that with the decision itself, otherwise, it might compromise the accepted standards of politics. In the context of indigenous peoples, their decision making processes have been cited as consistent with their understanding of governance. Significantly, the indigenous decision- making processes express a degree of self determination and autonomy, free from imposed external influence.

At the Cordillera Administrative Region of the Northern Philippines, particularly at Mountain Province lies the municipality of Bontoc, whose indigenous socio-political structure- the Ato, either kinship based or ward-based, gives its cultural identity. From these structures are rested upon the responsibility of decision making for the community and between other proximal villages.

The ato is a hallmark of the Bontoc culture. Its prominence, is in contrast with Jenks' (1905) observation of nearby provinces such as Benguet. For control, Bontoc has not developed a headman, or a rich man to rule over the community. Instead, a defining feature of the Bontoc culture is the presence of a conglomerate of smaller socio-political structures, the Ato, which is governed by a group of old men now called council of elders. From the Ato emanated edicts, pronouncements and laws for implementation. It is from this set up that the people owe survival and sustainability of their community. As several studies assert, the perpetuation of indigenous communities have always been assured due to their affiliation or membership to a local socio-political unit as they assured protection to its people.

The *Atos* at Bontoc Ili remain not only as visible physical structures today or as monuments of the past, but a living venue that keeps alive the grandeur of the past. As depicted in Casumpang (2015), "they revive with the very colors of life in the light of ceremonies celebrated in the present time in a group of functionally related religious structures that compose, today as yesterday, a ceremonial center."

This study takes off in the light of indigenous peoples education (IPED) aims, and in the skirts of the Philippine Constitution, particularly Art. XIV. Sec. 17 which states, " The State shall recognize, respect, and protect the rights of indigenous cultural communities to preserve and protect the rights of indigenous cultural communities to preserve and develop their cultures, traditions and institutions…" This paper looks into indigenous perceptions and values out of the traditional Bontoc Ato especially in the part of decision making. It takes off its analysis under the concepts of public administration, which itself has evolved from earlier views as the function of government whose scope covered laws, regulations , practices, codes and customs for the fulfilment or execution of public policy. It has also been referred in the 1950's as the organization and management of men and materials in the accomplishment of the purpose of the state (Chakas, 2015).

Objectives

This paper aimed to provide frameworks for strengthening, innovating and sharing the indigenous practices through a focus on the traditional Ato in Bontoc, Mountain Province. Specifically, it aimed to:

1. Highlight the democratic values in the decision making process in the traditional *Ato* of Bontoc determining therein the major issues brought upon the ato and the key players in the process;

2. Determine how the indigenous values and practices impacted the more formal political systems of Bontoc at present.

Assumptions of the study

The study revolved around the following assumptions:

1. The decision making in the traditional Bontoc ato is largely democratic and is largely geared on conflict reduction efforts.
2. The decision making process of the ato had impacted the formal political systems of Bontoc at present.

Scope and limitation

The study focused on the decision making of the traditional ato in Bontoc, Mountain Province. It aimed to highlight the indigenous process of decision making in the ato as viewed in the context of public administration.

The study is delimited to the following concerns: The decision making process in the Bontoc Traditional Ato, the key players in decision making and the interaction of the traditional ato to the current government system of Bontoc. It did not further refer to the nearby municipality's dap-ay like that of Sagada.

Since the traditional ato system is multidimensional embracing the social, political, agricultural, and other concerns, the study limits itself to the decision making process. Key informant interviews and documentary analysis were the methods used in this study.

Significance of the Study

To delve into the study of indigenous peoples is itself a perpetuation method of a heritage which is globally disintegrating at a very fast pace.

This paper hopes to monumentalize a tradition that has found itself in the near extinction bar. It will add to the resources needed in support of instructional materials which will be used by the Mountain Province State Polytechnic College in fulfilling not only its mandate of instruction but more importantly its responsibility to lead the revival of appreciation for culture. This study finds its place in one of the efforts to safeguard the Bontoc's intellectual property rights, as the study will be a ready reference for future queries and researches on the same field.

Research Methodology

This ethnographic study made use of qualitative type of research.

The method of Ethnography which is the systematic study of people and cultures was used. Ethnography has the following features (Cresswell, 2007):

- Field-based and is conducted in settings in which real people actually live.
- Personalized where researchers conduct interpersonal interaction in a day-to-day, face-to-face engagement.
- Multifactorial. It involves two or more data collection techniques, both qualitative and quantitative.
- Requires long term commitment necessitating an extended period of time of research activities.
- It is inductive which is done through accumulation of descriptive detail before theorizing.
- It is dialogic. Conclusions and interpretations are validated by the respondents.
- It is holistic which yields the fullest possible portrait of the group under study.

The case analysis was also used. In characterization of the Ato, data were gathered from secondary sources while the data on cultural practices were derived from interviews with key informants.

Research Environment

The study area is at the Municipality of Bontoc, Mountain Province particularly the Bontoc Ili where majority of the atos are.

Bontoc, the capital town of Mountain Province is located at the Cordillera Administrative Region of the Northern Philippines. Measuring a total land area of 39,610 hectares, it has sixteen barangays namely: Bontoc Ili, Caluttit, Poblacion, Samoki, Tocucan, Caneo, Talubin, Bayyo, Dalican, Mainit, Guina-ang, Maligcong, Alab Oriente, Alab Proper, Balili and Gonogon. According to the 2010 census, Bontoc has a population of 23,980, with 52% urban and 48% rural population.

Sources of Data

Primary and secondary sources were used. These are the books, published and unpublished papers, and recent documentaries on the Bontoc Culture.

Key informants were interviewed using the interview guide prepared by the researcher. They were the ato members who had direct participation in the deliberations of the Ato. The council of elders were also the lead interviewees throughout the study.

The data on the cultural practices, after the interviews, were transcribed and shown to the interviewees for validation. Purposive and snowball sampling was used to achieve this end. From the sources, contents were organized and analysed.

Results and Discussion

The *Ato* in Bontoc, Mountain Province is a socio-political institution whose persona goes beyond its physical structure.

Structurally, the traditional ato looks like a hut, thatched with cogon grass, with a wide open space in front, marked with big stone slabs arranged in circular form. It's frontage is adorned with carabao horns, the number of which speaks of the stature of the ato. There are seventeen (17) ato spread within the Bontoc Proper. However, today, there are only thirteen (13) visible structures and these are: Laoingan, Sipa-at, Iningkha, Foyayeng, Sim-angan, Lowakhan, Sig-ichan, Chokho, Longfoy, Filig, Padpachog, Mafe-fe and Lanao. Casumpang (2015) mentions that the ato Songowan, ato Pokisan, Ato Malolo Pokisan and Ato Mag-ew ceased to perform their function as cememonial centers of the ward.

There is no prescribed or fixed dimension for the ato. It comprises two major parts namely, the open space in front, the *Pabafunan (*circular ceremonial platform) and the *Fawi* (sleeping quarters). The *Pabafunan,* an open court, serves as a venue for sacred rituals for the community. One of the higher form of rituals that take off at the *Ato* is the *Manerwap* (Ritual for calling for the rain) and the *Mangeyag*. Oftentimes, it just serves as a convenient place for meetings for male members (Chaokas, 2005) or simply a resting place. Men would be seen smoking, chatting and lounging at the *pabafunan* during *tengao* or rest days.

Ato Chokho (Jenks, 1905)

Ato replica now at the Bontoc Museum
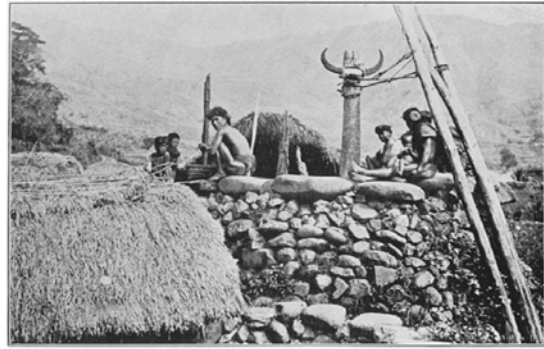
Meanwhile, the *Fawi* is a simple four walled

sleeping quarter or dormitory with a hearth inside. Joined sticks serve as mats for sleeping. It's capacity ranges from eight to as much as forty males. During the night, young boys are schooled here at night by senior *Ato* members about laws, traditions, customs including the acts which are considered taboo or prohibited. As early as five years old, boys sleep in these quarters.

The loft of the *Fawi* also serves as a repository of trophies of past conquests or victories. The skulls and jaws of enemies who were beheaded are stored at the *Fawi*. The horns of animals which were hunted are also stored and displayed here. The walls of the *fawi* were witnesses of the perpetration of the customary laws, as it is on this part of the ato where the senior members inculcate and teach the oral traditions in the forms of myths, legends, chants. Ama Ofo-ob narrated how, at a young age, old men of the ato recount to them, the young lads, the manner by which pacts with other ato are forged and maintained. He added that it is during this stay at the ato where your men were discipline by the older single men at the

ato. Among the virtues emphasized in the ato is obedience. It was then paramount to obey the "upper class men", otherwise they will be whacked with sticks.

More than a ceremonial center

Beyond serving as a seat of ceremonies and rituals to either please or appease the God Lumawig or as a place for nurturing men to respectable manhood, the *Ato* stood as a manifestation of the existence of an elite political organization bound by customary laws in Bontoc.

The *Ato*, so much more than just a hub for activities or as a social center, served as a seat of governance of a specific geographic territory. It is autonomous and independent from other atos in the community. In the framework of a socio-political institution, it fulfilled the following elements: the member families, leaders, customary law, code of conduct, sanctions, rituals and other activities. The activities varied and which may be religious, political or social in nature.

Governance of the *Ato* is not by any single leader nor by plebiscite nor by preference of a single bloodline. Instead, leadership and control is by a council of elders, *Entogtokhun*, a group of old men who satisfy certain characteristics before being endowed with a seat. Among all the atos of Bontoc, the most common characteristics preferred and required to be seated as a council member are: a. unquestionable integrity; b. known wisdom; c. extensive experience; d. impartiality. Some elders were also considered because of their status (belonging to the upper class), known bravery or heroism. They must be considered as paragons of virtue since they are expected to bear a dearth of accountabilities and responsibilities. The established credibility lends belief and confidence over the decisions that the elders arrive at. These men are now called Council of Elders.

Membership to the *Ato* is solely given to the male members of the family. Initial impressions point that the *Ato* is not stature sensitive but rather based on the location of one's house. Hence, clan members may or may not belong to one ato. Oftentimes, brothers are spread over different *ato* for practical reasons such as widened network and partnership. Once a member, he is entitled to all rights and privileges just as he is bound with duties and responsibilities to his ato and to his fellow members. Among the most important privilege of the membership to the traditional ato is the sense of security. During the tribal days in Bontoc, the members carry the right to be protected against tribal enemies (Casumpang, 2015). In case a member was aggrieved or has committed against another member, the council of elders act as mediator.

It is only the males who can participate in the affairs of the *Ato*. Only males are allowed access of the place too. If a family wishes to maintain lineage in an ato and there are no sons but daughters, son-in-laws may join. Moreover, only the married men can voice out their concerns during deliberations of community affairs. All other young unmarried men can assert contentions through these married men.

Democratic decision making

The *Ato* is a powerful institution because of its function as a legislative, executive and judicial body. It decides on significant matters affecting not only the member families but also of the whole community.

Ama Katangay states that laws were already set in place, as passed to generations. Another unwritten qualification of an elder is the ability to recall and recite the code of the ato and the other customary laws of what is *ngaag* or taboo, or the generally prohibited acts. For the members, among the most cited laws for a member to uphold is being a brother's keeper. This means to be available in times of need, to look after one's welfare, and to avenge a fellow member's death in times of war or foul play.

The execution of the laws is in the hands of the Council of Elders. Ama Katangay recalls the obedience of the people and how intimidating the council of elders are once a decision has been made.

As a judicial body, the ato sits on all cases with due consideration of territorial jurisdiction of either the crime committed or the aggrieved member. Lengwa (2007) cited other conflicts where the wisdom of the ato was tested. These included natural resources related conflicts, boundary disputes, to murder, theft, adultery, separation, remarriage, homicide and others.

Kiat-ong (2015) refers to Cawed (1972) in this retrospect, where the *Ato* decides on matters such as whether: a. war with another tribe will be declared, accepted or rejected; b. customary laws are created or amended; c. activities of the agricultural year of the village will be implemented; d. to provide sanctions or not to erring community members; e. hear, review, and judge cases and all kinds of problems brought to its lair. Ama Katangay confirms Chaokas (2005) who claims that peace treaties or peace pacts are accepted or rejected by the Ato.

The deliberations are chaired by the council of elders. They preside on cases brought upon them. These matters range from petty to heavy crimes against members within the same ato or among members with different ato. For instance, if there is a challenge of war from another ato, the men are convened. With an issue on hand awaiting decision, the village crier informs the community of a meeting to be held

at the *Ato*. When members are gathered, the problem is presented to the group for the discussion of all.

The process of deliberation is open, inclusive and all members feel part of it. Each feels confident to give an input sans the fear of retribution if their views are not common and are at odds with the others'.

Discussion in the *Ato* is highly democratic that every member wishing to share his ideas is given his minute of fame, making the meetings lengthy yet lively. The session becomes a consultation process. In the context of the modern state, this breeds trust to the process. Similarly, public administration's effectiveness often relies on cooperative participation of others. In the case of the *ato*, the decision making process rests heavily on the consensus and unanimity of the decision with the cooperation of the members.

While only the men can stand to the group and voice their opinions, it is accepted that each head of the family's voice represents his family's stand. It implies that he brings to the *Ato* what has already been discussed with his family members, especially the wife. Ama Pablo expressed that it is not a few times that men express openly reference their partners' stand.

The elders, after hearing the discussions in the ato, confer among themselves with heavy consideration of the short, medium and long range effects of verdicts. Precedence is also highly regarded on controversial and conflicting views. The other experiences of other ato may be cited. In the absence of precedence, care in the deliberations is observed because of the welfare of the whole community is also at stake.

Once a consensus or a unanimous position has been reached, the council of elders declare decisions almost immediately. The results are then disseminated to the community or another ato if it concerns another. They may be symbolically sent to other atos, or a messenger is sent to personally deliver the result.

Sanctions do not vary much and they may be required on the day of decision itself. In the local term, the sanctions find gravity in *mitotongo*, or as immediately required. To the Bontocs, the time honoured tradition is to impose upon the guilty party the production of six carabaos, two rice granaries each containing one thousand five hundred bundles of palay and one huge vat (Ekid, 2010). Other sanctions required ten carabaos, ten carabaos and two full rice granaries. These may be considered harsh considering the economy at that time, but as emphasized in all hearings, each misdeed has a corresponding high price to pay; at worst, eye for an eye. The demise or injury inflicted on another is never a light matter to the Ato.

The acceptance of the decision of the *ato* is imperative. The other *ato* members have almost no resistance over the decisions as these are backed by customary laws and oral tradition. The advices or pronouncements are executable and final, and any one disobeying can be fin ostracized.

Impact of the traditional ato to the formal political systems of Bontoc at present

There is little doubt that the Ato has been run down with change brought about by different facets of modernization. Things may never be the same again as with the traditional Bontoc Ato. However, when viewed today in its entirety, it still is a powerful institution in many aspects.

Structurally, the surviving contemporary ato is so far off from the traditional ato that was first documented in 1901 by Maud Jenks. Today all the ato are of galvanized roofs, cemented walls and at unmaintained state. It is observed, however, that the layout is the same but only made with different materials.

The surviving contemporary ato still maintains some of its original functions. The *fawi* as a dormitory for young men does not exist as such anymore. In some ways, as if in harmony with the olden times, some atos are now attached with day care centers for the education of the young and the barangay hall for meetings and similar purposes. The ato as the usual clubhouse for men, however, ceased.

Although the Ato is not the main social center of the community anymore, it is still host to important community rituals. For some which are still visible, the atos remain as ceremonial centers, although not as often as before. For instance, the ato still stands host to the grand *pasuk-ey*, if one is hosted. The *manerwap* (ritual for calling rain) still starts at the ato while the decision of the *tengaw* or rest day in the agricultural cycle come from the ato. The most common is the *Konto* where the *ato* is the reference point of activities related to this ritual. It pertains to the end of the mourning of the family who have been bereaved.

Today the present government has averted the ato's legislative, executive and judicial powers in it's territory. In the new set up, the government of the Republic of the Philippines, even at the decentralized local government unit structure, rendered the local ato powerless in formal legislation, decision making and the implementation of customary laws. Albeit the provision in the Philippine Constitution recognizing the indigenous peoples as partners in rural development in each Local Government Unit via participation in the planning of rural development, the new

political system has caused the major disintegration of the Atos. The inadvertent loss of an indigenous form of governance and the values that came with it can easily be credited to the new form of government.

Despite this, the political relevance of the Ato has not been totally diminished nor has it been fully relegated to the archives and memories of the past. In Bontoc, although political development has taken its course, the role of the Ato seeps into local governance. As observed, the local government units have interfaced some features of the ato system. This is due to the strong political leaders who opted to operate in the framework of customary laws. This rested on the influence of sitting mayors or barangay captains and lupons who have grown in the ato system or are council of elders themselves. A complementing factor is the insistence of the people who prefer the trial of the council of elders rather than or alongside formal proceedings of the justice system of the government. This integration has resulted to the "indigenization" of the local government made possible by cultural sensitivity.

Mirroring the old ato, in the bottom up approach, consultations are still done in Ato form, although not at the Ato per se anymore, but in the municipal Hall, or at times at the Ato replica built at the Bontoc Municipal compound. Old men are invited to share their insights on developmental issues such as mining, dam creation and other crucial environmental matters needing their voices.

Another manifestation of the influence of the Ato system is the recent adaptation of the definition by the National Commission on Indigenous Peoples-Mountain Province on the term Council of Elders as: *The body of men and women whose reputation in the community has been tested because of their broad knowledge in the practice of customary law. These men and women act as arbiter in the settlement of disputes.* This recognition has somehow put focus once again on the Council of Elder not only as a religious figure but also as part of decision making in the government.

In relation to the above and particularly in conflict resolutions or in efforts to maintain peace among communities with atos in the Province, Ekid (2010) bannered the indigenous dispute settlement adopted from the ato as one of the best practices of Mountain Province in peace building. She further highlighted the obvious expansion of the composition of the council of elders from the traditional all male group. Indeed such new composition has implied a paradigm shift of gender sensitivity in the functions of the council of elders outside the ato structure.

Moreover, in the pursuit of peace, the wisdom of the Council of Elders are still oftentimes consulted especially in areas where the government's peace keeping machinery is considered wanting. At times, the elders sit with the other formally elected political leaders in consultations to form an alternative initiative to the government judicial procedure of settling conflict cases. This happens because some communities prefer the ato court with the perception of receiving an impartial and speedy trial there. Somehow, the window for this is provided when the law required that before cases are elevated to the municipal courts, they must have passed through the local barangay hearings. Oftentimes, these barangay hearings are graced by the wisdom of the elders.

The extension of the Ato is not limited to the participation of the Council of Elders in the consultations. It extends into the sanctions accorded the offending party. Fines are still imposed, although in monetary form equivalent to the supposed in kind penalties such as carabaos and rice granary. In the amicable settlement between community elders and barangay officials of Lias, Barlig and Agawa, Besao, of the Criminal Case No. 2147 filed under the PNP Bontoc, the case was settled through payment by the offending party to the victim, including another payment of the people of Barlig to the four barangays of Bontoc for violation of the pagta agreement. The choice to maintain the pact between and among atos or barangays is still very much alive.

The above imply that the local government is not keen to supplant entirely such traditional ato very soon. The winning local politicians in the barangay are mostly council of elders or ato members themselves. The higher local government posts have also consulted the elders and have won their endorsement. Consequentially, given that foundation, the operations of the local government have not conflicted with customary laws, and instead, have taken serious consideration these traditions which in turn ensured acceptance of the programs by the local community. In return, such regard has maintained solidarity and in sustaining culture of peace and social justice in the community.

Conclusions and Recommendations
Conclusions
1. The Bontoc traditional ato encompassed the democratic values of consultation, cooperative participation in decision-making, unanimity, representative government and commitment to the common good
2. Hinged on oral customary laws, the Bontoc Ato has seeped through the local government unit and has molded public values today and has sufficiently contributed to sustained peace and social justice.

Recommendation

The researcher recommends for the integration of a chapter of the Bontoc ato in the study of political systems in the curriculum of MPSPC AB Political Science. The council of elders can be invited as resource persons for more effective learning and more in-depth interaction with the students.

The researcher further recommends for the partnership of the Mountain Province State Polytechnic College with the Local Government Unit in immortalizing the indigenous socio-political system through the production of popular information materials for easier understanding and dissemination as oral traditions have been preserved.

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CANDIDATE ENGINEERS: AN EVALUATION OF THEIR LICENSURE EXAMINATION PERFORMANCE

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Abstract – This study evaluated the performances of the candidate engineers of the College of Engineering (COE) of the Tarlac State University (TSU) in the licensure examinations. The results of the four-year licensure examinations of the graduates of the COE with specialization in the fields of civil, electrical, electronics, and mechanical engineering were covered in this study.

The research methods used in the study were descriptive and analytical approaches. The subjects of the study were the TSU College of Engineering graduates with specialization in civil, electrical, electronics and mechanical engineering. They took the board examination during the same year or not more than one year from the time of their graduation. Candidates who took the board examination more than once and/or beyond one year from the date of their graduation were not included in this study.

For ethical consideration, all necessary procedures in acquiring the board examination results were strictly adhered to by the researchers. Likewise, the names and board examination results of the subjects of this study were treated with utmost confidentiality to protect their interest.

The total numbers of first time takers for the licensure examinations in engineering specializing in civil, electrical, electronics and mechanical engineering were 100, 106, 108, and 44 respectively.

The statistical methods used in this study were the descriptive and inferential statistics. The analysis of variance was used to determine the variation among the four-year licensure examination performances of the candidate engineers in the fields of civil, electrical, electronics, and mechanical engineering.

The study revealed that there was no significant difference among the four-year licensure examination performances of both the civil and mechanical engineer candidates. In contrast, the electrical and electronics engineer candidates' performances significantly differed within the evaluation period.

Keywords: Candidate Engineer, Licensure Examination Performance, Evaluation of Licensure Performance

INTRODUCTION

Engineering educators of the Philippines pose a substantial concern for globalization of service. In this case there will be free flow of service among countries and therefore professional services have to be liberalized. Due to the increasing importance of human services, an appropriate move has to be done in order to stress the greater impact and promotion of engineering education for globalization. In this age of globalization, modern professionals are challenged to learn, analyze and innovate. A key to globalization is sustaining knowledge-based education through interdisciplinary ways.[1]

The Licensure Examination for Engineers is a tool that measures and ensures the quality of engineers who would join the workforce of various manufacturing industries in the Philippines and abroad. The Professional Regulations Commission (PRC) as the duly constituted body created for this function has been consistent in its task of screening who among the graduates from all board courses will be granted the professional licenses based on the board exam results.[2]

Professional regulation impacts the lives of the 2.4 million registered Filipino professionals from 42 various fields and the hundreds of thousands of aspiring professionals who take the licensure examinations every year. More so, PRC affects the lives of every Filipino relying on the services of the professionals.[3]

Passing the licensure examination given by the PRC is one of the greatest achievements in one's life.

This examination is intended to prove the graduates' knowledge, progress, skills and qualification in a particular profession. It needs a lot of time to study, to have self-discipline, patience and determination and these will not be possible without prayers, support and encouragement.[4]

In an academic setting, it is the responsibility and accountability of the members in the academic system to ensure the success of their graduates. [5] This would be accomplished through the adoption of appropriate engineering education and experience requirements as prerequisites for licensure.[6]

The performance of the student in every institution plays a very important role in determining the quality of education, which eventually guarantees the efficiency and effectiveness in application in a chosen profession or career. It suggests a higher standard of performance of the instructional system. The performance of the student in the licensure examination reflects the institution's efficiency as well as the intellectual capacity of the student.[7]

The present study evaluates the performance of the engineering graduates of the College of Engineering (COE) of the Tarlac State University in the licensure examination. The results of the four year licensure examinations of the graduates of the COE with specializations in the fields of civil, electrical, electronics, and mechanical engineering are covered in this study.

STATEMENT OF THE PROBLEM

The present study is focused on evaluating the licensure examinations performance of the candidate engineers of the TSU College of Engineering with specializations in civil, electrical, electronics, and mechanical engineering. Specifically, the study answered the following questions.

1. What are the performances of the candidate engineers in the licensure examination in terms of:
   rating distribution per course?
   average performance per subject area?
   passing performance?
2. Is there a significant variation among the performances of the candidates in the engineering licensure examination?
3. What plan of action is proposed to improve the performances of the candidate engineers in the licensure examinations?

METHODS AND MATERIALS

The research methods used in the study were the descriptive and analytical approaches. The subjects of the study were the College of Engineering graduates with specialization in civil, electrical, electronics and mechanical engineering. The Tarlac State University graduates took the board examinations during the same year or not more than one year from the time of their graduation. Candidates who took the board examinations more than once and/or beyond one year from the date of their graduation were not included in this study.

The board examination performances of the engineer candidates were acquired from the Professional Regulatory Commission (PRC) through the Dean of the College of Engineering. For ethical consideration, all necessary procedures in acquiring the board examination results were strictly adhered to by the researchers. Likewise, the names and board examination results of the subjects of this study were treated with utmost confidentiality to protect their interest.

The total numbers of first time takers of the licensure examinations in engineering specializing in civil, electrical, electronics and mechanical engineering were 100, 106, 108, and 44 respectively.

The statistical methods used in this study were the descriptive and inferential statistics. The analysis of variance was used to determine the variation among the four-year licensure examination performances of the candidate engineers in the fields of civil, electrical, electronics, and mechanical engineering. The scheffe test was used to determine which among the licensure examination performances of the candidate engineers in the fields of civil, electrical, electronics, and mechanical engineering significantly differed.

RESULTS AND DISCUSSIONS

1. Performance of the Candidate Engineers in the Licensure Examination

The rating distribution per course, average performance per subject area, and passing performance of the TSU first time takers of the licensure examinations in engineering specializing in civil, electrical, electronics and mechanical engineering are presented in the succeeding discussions.

1.1 Rating Distribution per Course

In Table 1, the overall rating distribution per course of the candidate engineers is presented.

Section 16 of Republic Act 9292 with the short title Electronics Engineering Law of 2004 states that "to pass the licensure examination, a candidate for Electronics Engineer must obtain a passing rating of seventy percent (70%) in each subject given during the examination. Provided, however, that a candidate who obtains a passing rating in the majority of the

subject/s below seventy percent (70%) but not lower than sixty percent (60%), shall be allowed to take one removal examination on the subject/s where he/she failed to obtain the passing rating."

For the civil, electrical and mechanical engineering licensure examinations all candidates must obtain an average rating of seventy percent (70%) in all subject areas provided that no subject/s will fall below fifty percent (50%).

The table reveals that majority of the performances of the civil engineer candidates were below the passing mark of 70 percent. There were 45 candidates who surpassed the passing mark but only 44 candidates passed the examination. The reason for this is that one candidate had a rating below 50 percent in one of his subjects. Among the examination passers, one candidate got a passing mark of 94.55 percent.

There were 37 electrical engineer candidates who

Table 1. Overall Rating Distribution per Course

Score Range	Civil	Electrical	Electronics	Mechanical
35 – 39	1	1	2	0
40 – 44	8	8	1	0
45 – 49	8	8	3	0
50 – 54	9	13	12	0
55 – 59	9	9	15	3
60 – 64	12	16	17	2
65 – 69	8	14	14	5
70 – 74	5	19	20	6
75 – 79	17	10	14	15
80 – 84	14	5	9	9
85 – 89	8	3	1	2
90 – 94	1	0	0	2
Total number of passers	45	37	44	34
Total number of candidates below the passing mark	55	69	64	10

earned ratings above the 70 percent passing mark. Unfortunately, the candidates, passing rate stood only at 34.91 percent.

Forty-four of the electronic engineer candidates earned an overall rating of 70 percent and above. Out of the 44 candidates only 29 passed the examinations. The candidates who earned ratings below 70 percent in one or more subjects automatically earned a conditional or removal examination remark. Candidates who obtained passing ratings in the majority of the subjects but obtained ratings in the other subject/s below seventy percent (70%) but not lower than sixty percent (60%), were allowed to take one removal examination on the subject/s where the candidates failed to obtain the passing rating.

The mechanical engineer candidates got the highest number of passers among the courses in terms of percentage. Out of the 44 examination takers, 34 of the candidates earned a rating of above 70 percent. Out of the 34 candidates, two candidates earned ratings of 90.80 and 90.85 in the licensure examinations.

Overall, the mechanical engineer candidates outperformed the civil, electrical, as well as the electronics engineer candidates in terms of average passing performance.

1.2 Average Performance per Subject Area

The average performance of the candidate engineers per subject area is presented in table 2.

The licensure examination for civil engineers covers the subjects mathematics, surveying and transportation engineering (subject 1); hydraulics & geotechnical engineering (subject 2); and structural engineering and construction (subject 3).

For the electrical engineer licensure examination, the coverage are mathematics (subject 1), engineering sciences and allied subjects (subject 2) as well as electrical engineering professional subjects (subject 3).

Electronics engineer licensure examination covers the following subjects: mathematics (subject 1), general engineering and applied sciences (subject 2), electronics engineering (subject 3), as well as electronic system and technologies (subject 4)

The coverage of the mechanical engineer licensure examination are mathematics (subject 1), machine design (subject 2), and industrial/power plant engineering (subject 3).

As presented in Table 3, the civil, electrical, as well as the electronics engineer candidates in the licensure examinations attained an average rating below the passing mark in all subject areas. Only the candidates in the mechanical engineering licensure examinations attained an average rating of 70 percent

Table 2. Average Performance per Subject Area

Subject	Civil	Electrical	Electronics	Mechanical
1	69.78	63.62	68.42	75.30
2	69.14	62.21	69.81	80.30
3	60.75	63.24	62.23	70.84
4	-	-	63.56	-
Overall	66.43	63.06	66.01	75.71

and above in all subject areas.

Overall, the candidates in mechanical engineering had the highest average performance in the licensure examinations at 75.71 percent. This was followed by the civil, electronics and electrical engineer candidates with averages of 66.43, 66.01, and 63.06 percent respectively.

1.3 Passing Performance

In Table 3, the passing performance of the candidates in the engineering licensure examinations is presented.

There were 100, 106, 108 and 44 candidates who took the civil, electrical, electronics and mechanical engineering licensure examinations, respectively, in the last four years.

The average passing rate of the civil and mechan-

Table 3. Passing Performance of the Candidates

	Civil	Electrical	Electronics	Mechanical
Number of Candidates	100	106	108	44
Passed	44	37	29	34
Passing Rate	44.00	34.91	26.85	77.27
Average National Passing Rate	38.95	43.12	27.05	62.68

ical engineer candidates was above the average national passing rate. Both the electrical and electronics engineer candidates had average passing rates below the average national passing percentage.

2. Difference among the Performances of the Candidates in the Licensure Examination

In Table 4, the results of the analysis of variance on the four-year licensure examination performances of the candidate engineers is presented.

The results revealed that the performances of the civil engineer candidates did not significantly differ in

Table 4. Analysis of Variance on the Performances of the Candidate Engineers

Course	Computed F - value	Critical F-Value	Decision
Civil	0.77200	2.69939	Accept Ho
Electrical	11.56988	2.693721	Reject Ho
Electronics	6.122244	2.691979	Reject Ho
Mechanical	2.117476	2.838745	Accept Ho

terms of their examination results in the last four years of the licensure examinations. This means that there was cohesiveness of the knowledge by the candidates who took the licensure examinations. Unfortunately, the average rating of 66.43 of the civil engineer candidates is below the passing mark which indi-

cates that they performed poorly in all the four years of licensure examinations.

For both the electrical and electronics engineering licensure examinations, the results revealed that the performances of the candidates significantly differed during the four years of licensure examinations. The difference can be attributed to the decline in performance of the candidates in some licensure examinations.

The performance comparison among the licensure examination results of the mechanical engineer candidates revealed that there is no significant difference among their performances in the four year period. This means that the performances of the mechanical engineer candidates were comparable per examination year.

3. Proposed Plan of Action

In Table 5, the proposed plan of actions to improve the performance of the candidate engineers in the licensure examination is presented.

Table 5. Proposed Plan of Action

Strategy	Brief Description
1. Curriculum review on the engineering courses	The dean, chairpersons, and faculty members of the different departments of the college may review and revise the curriculum and syllabi to meet the requirements of the CHED memorandum order number 37 series of 2012 which aims to provide policies, standards and guidelines in the establishment of an outcomes-based education (OBE) system in higher education institution offering engineering programs.[12]
2. Review of the college retention policy	The dean, chairpersons and the faculty members may establish a retention policy and a department strategy for improving the performance of academically weak students through pear learning groups, and appointment of advisers. Pear learning groups encourage and help students to develop as they find that others have similar problems and get a chance to discuss their academic problems and other issues. An organized approach to this involves forming groups of 10-12 students – good and weak mixed, who learn jointly. Good students can help weak one, the act of tutoring also helps good students. Peer groups can also help each other. There can be 'vertical

	integration', i.e., senior students can work with juniors, and student-faculty interactions can also be enhanced, with faculty members being available as resource persons to the student learning groups and even interacting informally with them. A student-centered strategy to improve performance is the appointment of active student advisers, mentors or proctors. The institution can appoint for every 10-15 students entering the first year. This faculty adviser/mentor/proctor establishes a close relationship with each student, orients them to college practices, follows their progress regularly.[13]
3. Practice or mock board examination for graduating students	Through the collaboration of the engineering faculty members, a mock board examination system may be developed and implemented in order for graduating students to undergo and assess themselves in their preparedness for the board examination. Examination questions provided by faculty members will be item analysed. Student feedback will be given in order to determine what subjects are their strengths and weaknesses. Statistics from the feedback will be basis on topics that will be given greater attention during the in-house review for graduating students.
4. Coaching on how to pass the licensure examination	The college of engineering may tie up with reputable review centers to provide mock board examination questionnaires and conduct in-house review for graduating students.[14]
5. Conduct of bench marking in high performing schools	The dean, chairpersons, and faculty members may conduct bench marking activities in high performing schools in the licensure examination for them to replicate the identified best

The proposed strategies to improve the performance of the candidate engineers in the licensure examination are as follows: review of the curriculum; review of the college retention policy; practice or mock board examination for graduating students; coaching on how to pass the licensure examination; and conduct of bench marking in high performing schools.

The evaluation of student performance has two primary purposes: 1) summative, to measure student progress or achievement, and 2) formative, to provide feedback to students to help them learn. For instructor, it is easy to place emphasis on the first goal, since one of his most visible jobs is to assign grades that become part of the permanent record. The second goal, however – providing feedback for the purpose of helping students improve – is often the more im-

portant one for the success of students, as well as for the success of the teacher.[8]

According to Singh (2010), evaluating factors such as academic competence, test competence, strategic studying, time management, and test anxieties are very important in evaluating academic success. Specifically, test competence and academic competence are important factors associated with academic performance. Focusing efforts to understand these factors further would be helpful for students in enhancing their academic performances. Efficient counseling services regarding study techniques along with stress management programs could assist students in achieving better academic performance.[9]

The effectiveness of a curriculum is measured using the results of the licensure examination. Schools usually develop remedial measures to increase the number of passers.[10]

Learning outcomes must be observable, achievable, and measurable. Determining how successful learning outcomes are achieved is a challenging task. It requires continuous assessment and professional judgment from all program constituents.[11]

CONCLUSIONS

Based on the findings of this study, the following conclusions are reached.

1. The mechanical engineer candidates outperformed the civil, electrical, as well as the electronics engineer candidates in terms of their average passing performance.

2. The candidates in the mechanical engineering licensure examination had the highest average performance with a 75.71 rating.

3. Overall, the civil and mechanical engineer candidates performed above the average national passing rate. On the other hand, both the electrical and electronics engineer candidates had average passing rates but below the average national passing percentage.

4. There is no significant difference among the four-year licensure examination performances of both the civil and mechanical engineer candidates. In contrast, the electrical and electronics engineer candidates' performances significantly differed within the evaluation period.

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