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The Gen-Math Machines: Way to Increase Academic Performance of Senior High School Learners

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Abstract

This study focused on determining the effect of the use of Gen-Math Machines which are manipulatives or teaching tools in one of the core subjects of Senior High School, General Mathematics. The teacher-researcher asked the learners to develop Gen-Math Machines that would elicit the things that they are learning in General Mathematics, and those machines were used in enhancing skills of learners in General Mathematics. One hundred forty-four became the respondents for this study, and they were the grade 11 learners of Talangan Integrated National High School, school year 2017-2018. Data came from the result of a 20-item quiz given after teaching sessions on the topic Exponential and Logarithmic Function – one set of data using teaching process without the aid of Gen-Math Machines while the other set of data came from teaching process with the aid of Gen-Math Machines. For teaching process without the aid of Gen-Math Machine, the learners got a mean of 9.94 and an SD of 4.38 from a 20-item short response quiz. On the other hand, learners got a mean of 14.65 and an SD of 8.87. Learner to a higher mean when manipulatives are used during the teaching-learning process. Using t-test for dependent samples, it was found out that teaching process has significant effect to the Mathematical performance of learners. The Gen-Math improved learners' concept and skill in mathematics. Recommendations to mathematics teachers, department head, school heads, family, community and future researchers were left at the end of the study.

Keywords: manipulatives, performance, mathematics

Introduction

“The greatest impact on learning is the daily lived experiences of students in classrooms, and that is determined much more by how teachers teach than by what they teach.” Dylan William (2011)

With these words of William, we see how the process impacts the learner, more than the knowledge being fed to them. Teachers may have mastery of the topic he is handling but the way to relay those information is another issue that every teacher deal in everyday classroom encounter. Truths and facts in different discipline are intact, or at least, changes not over a generation. Mathematics concepts have been proven for centuries, and still are the

concepts being taught today. But the approach, strategy, method and activity should be an ever changing current as the learner changes also in their characteristics.

In this note, teachers should always think of ways in which to effectively communicate knowledge, in a way that they will enjoy, participate, collaborate, and thereby learn with high level of output or performance.

Background of the Study

In the Eight Habits of Highly Effective 21st Century Teachers, Andrew Churches enumerated the teacher's profile : adaptor, communicator, learner, visionary, leader, model, collaborator and risk taker. As a collaborators, educators must be able to leverage tools that would enhance and captivate learners.

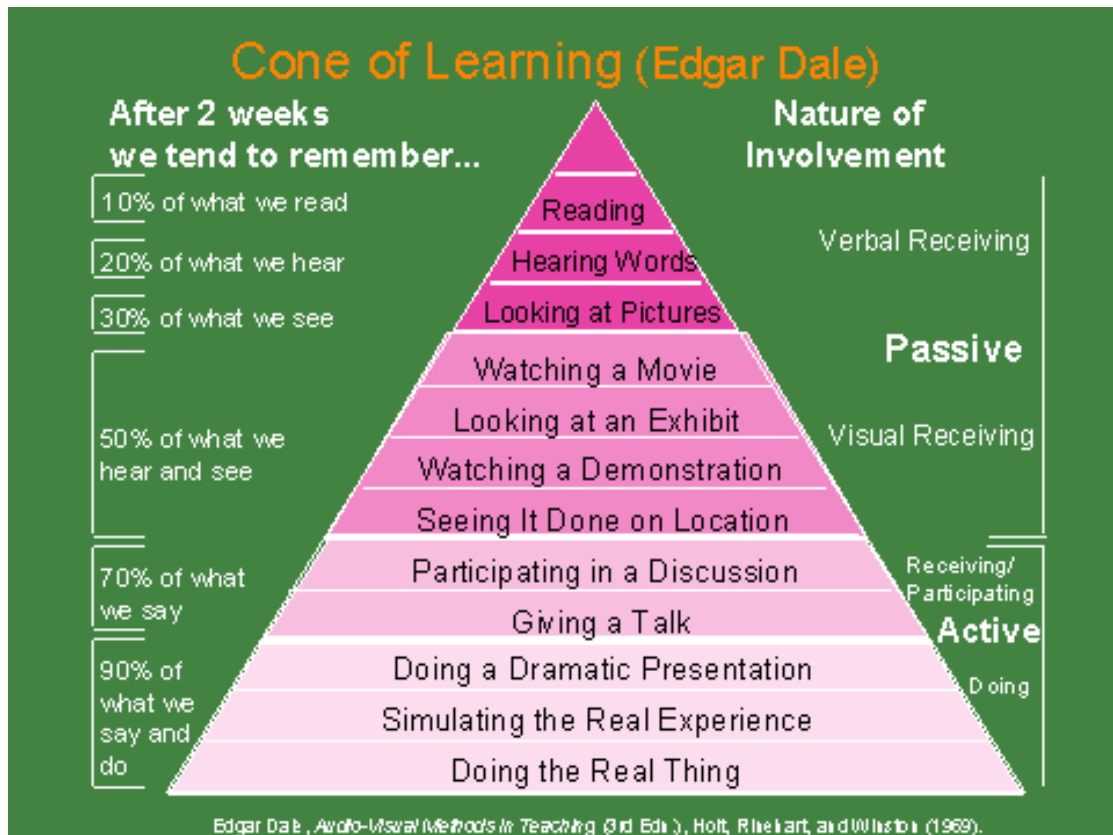
Senior High School learners of Talangan Integrated National High School has eight core subjects for the first semester of school year 2017-2018. They are Oral Communication, 21st Century Literature, Komunikasyon at Pananaliksik, General Mathematics, Earth and Life Science, and Physical Education and Health. The enrollees for grade 11 this school year adds up to 144: 38 for General Academic Strand and a combined 106 (coming from three sections, TVL 11A, TVL 11B and TVL 11C) for Technology, Vocational and Livelihood (TVL). The researcher is their teacher in General Mathematics.

The teacher would like to investigate the possible significant effect of the use of manipulatives in teaching Mathematics. So he asked the learners to develop a Gen-Math machine – a tool that would teach learners General Mathematics' concept and skills. Each of the four sections was divided into five groups, thereby creating 20 Gen-Math machines. The machines created have different features – a dart board that would elicit questions in Gen. Math for learners to answer, a drop ball, a graphing board, a robot that contains question and answers in his belly, a draw lots machine, a rolling ball maze mechanism, a color game board that contains questions in Gen. Math, a spinning board, and a drop ball that has several outcomes for different questions to answer. (See Appendix)

The teacher had a series of classroom sessions on the topic Exponential and Logarithmic Function for a week without the aid of Gen-Math machines, a 20-item quiz was given and the result is recorded. The following week, series of classroom sessions with the same topic for a week was held, a 20-item quiz was given and the result was again recorded. The whole result of this investigation is recorded in this study.

Theoretical Framework

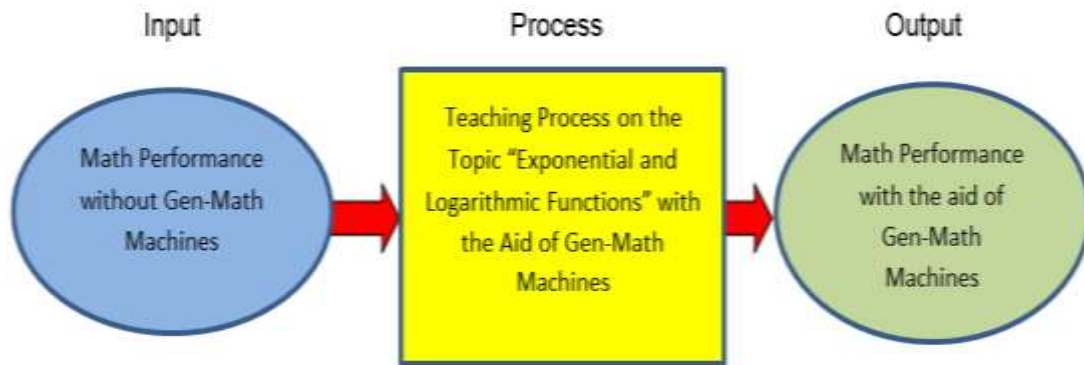
The Cone of Learning by Edgar Dale shows the two bottom parts of the pyramid : simulating the real experience and doing the real thing.



Students are at the highest peak of learning when they actively participate. By simulating the real experience and doing the real thing, they are able to connect the abstract into concrete, the principles into application, the skill into practice.

Conceptual Framework

The figure shows the conceptual model of this study. The figure below shows the conceptual framework for this study.



The input is consists of Math performance without the aid of Gen-Math Machines. For the process, the teacher made use of learners-made Gen-Math machines as manipulatives during the teaching-learning process. And for the output, the teacher gave a 20-item quiz and recorded their performance.

Statement of the Problem

This study will aim to determine if the use of Gen-Math Machine will increase the academic performance of Senior High School learners in Talangan Integrated National High School in General Mathematics.

Specifically, it seeks to answer the following question.

- 1.) What is the mean level of academic performance of Senior High School learners of Talangan Integrated National High School in General Mathematics without the aid of Gen-Math Machines?
- 2.) What is the mean level of academic performance of Senior High School learners of Talangan Integrated National High School in General Mathematics with the aid of Gen-Math Machines?
- 3.) Is there a significant difference between the academic performance of learners with and without the aid of Gen-Math Machine?

Scope and limitations

This study was conducted in the first quarter of the school year 2017-2018, that is, from June to August of 2017 using the learners of General Mathematics which is one of the

core subjects in Senior High School curriculum. Four sections of Grade 11 became the subjects of this research. The result of this study does not encompass other math subjects for either senior high school or junior high school. Nevertheless, this can be replicated for the purpose of knowing if the result would be the same for other math subjects and other grade level.

Review of Related Literature

Which among school and home environments affect academic performance? A study made by Visser (2015) revealed that both school and home environments play significant role in learners' mathematics performance. Some learners rely on working memory in dealing with mathematics. They just memorize facts, steps and concepts. Consequently, the performance of individuals who rely most heavily on working memory for successful execution is most likely to decline when the pressure is on. (Beilock, 2008). The study made by Crane (2010) indicate that public schools' bureaucratic regulations for teacher education, curriculum and instruction helps instead of hinder learners' performance in Mathematics. Moirao (2010) highlighted four types of learners in Mathematics: mastery learners, understanding learners, self-expressive learners and interpersonal learners. This is the reason why teachers in Mathematics need to be creative and flexible in dealing with everyday lessons. Visual representations is indispensable because it is a complex process that attempts to make abstract concepts tangible, difficult ideas understandable, and multifaceted problems solvable. (Steadly, 2008). Many educators support the use of visual representations or manipulatives. Burns (1992) advised teachers to allow time for students to be creative, and that includes making their own model of what they are learning in Math. Pehkonen (1997) encouraged teachers to give opportunities to students to work on problems that require resourcefulness and creativity. Colgan (2014) underlined the solution to learners' misbehavior, "Many students find math boring and disengaging; use games, apps, TV programs, and books to make math fun." Rittle-Johnson (2016) on the other hand promotes using physical movements in the classroom. Protheroe (2007) found out that middle ages are already experiencing important crossroads in their mathematical education, "forming conclusions about their mathematical abilities, interest, and motivation that will influence how they approach mathematics in later years." And so, the senior high school stage is a shock absorber of what they have already develop in their minds in former years, in which,

teachers need to be creative and flexible in handling or in giving solution to learners' difficulties.

Research Design

This study utilizes an experimental design in doing research. According to Blay (2013), this design is used when the researcher would like to investigate on the cause and effect relationship, and this paper has that purpose – to find out the effect of using Gen-Math Machines to the academic performance of SHS learners of TINHS.

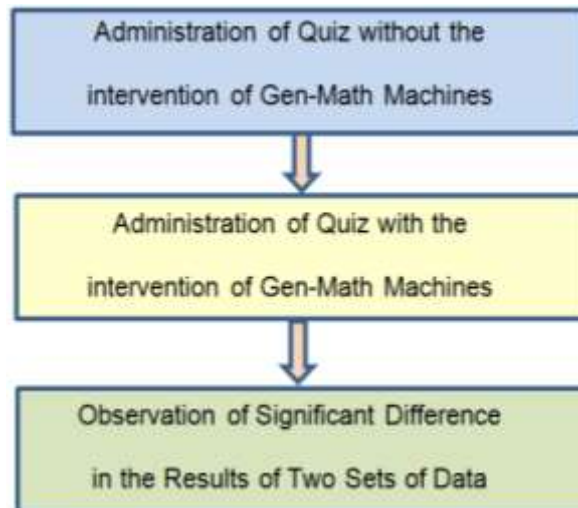
Population

The population for this study is the grade 11 learners of Talangan Integrated National High School, school year 2017-2018. The sections and frequency is presented in the table below.

| Sections | Number of Learners |
|----------------|--------------------|
| GAS 11 Vibrant | 28 |
| TVL 11A | 40 |
| TVL 11B | 38 |
| TVL 11C | 38 |
| Total | 144 |

Data Gathering Procedure

Data and results were gathered and analyzed using the following steps undertaken by the teacher-researcher:



Mean and standard deviation were used to analyze the data gathered from series of quizzes with and without the intervention of Gen-Math Machines. For the significant difference between the two arrays of data, t-test for independent samples was used.

Presentation, Interpretation and Analysis of Data

The table shows the result of the of a 20-item quiz given to grade 11 learners of Talangan Integrated National High School.

| Teaching Process | n | Mean | SD | T-critical | T-computed | P-value | Decision |
|---------------------------|-----|-------|------|------------|------------|---------|-------------|
| Without Gen-Math Machines | 144 | 9.94 | 4.38 | 1.98 | -5.71 | 0.00 | Significant |
| With Gen-Math Machines | 144 | 14.65 | 8.87 | | | | |

alpha = 0.05

The two teaching processes being compared are classroom sessions without the aid of Gen-Math Machine and classroom sessions with the aid of Gen-Math Machine. Without the aid of Gen-Math Machine, the learners got a mean of 9.94 and an SD of 4.38 out of a 20-item quiz on the topic Exponential and Logarithmic Function. On the other hand, using Gen-Math Machine, the learners’ mean is 14.65 and SD is 8.87. This shows that learners did better

in the teaching-learning process when the Gen-Math Machine is used to learn concepts and skill in Mathematics. Using t-test for dependent samples, the T-critical is 1.98 while the T-computed is -5.71. Since the absolute value of the T-computed is greater than the T-critical, it can be said that there is a significant difference between the two means. The P-value 0.00 which is lower than the alpha 0.05 supports the claim that there is a significant difference between the scores in quiz without Gen-Math Machine and with Gen-Machine, thus, the implication that the teaching process affects the Mathematical performance of grade 11 learners. When Gen-Math Machine is used alongside teaching and learning, higher Mathematical performance is exhibited by the learners compare with the teaching process without the aid of Gen-Math Machine. The result of this study is supports Burns (1992) who advised teachers to allow time for students to be creative, and that includes making their own model of what they are learning in Math. Also, the outcome of this paper is the same with Pehkonen (1997) who promotes encouragement for teachers to give opportunities to students to work on problems that require resourcefulness and creativity.

Recommendation

Based from the result of this study, the researcher recommends the following to targeted person or group of people:

- a. **Math teachers** should continue to develop teaching tools that would enhance teaching and learning process and would motivate learners to achieve more.
- b. **Department heads** may initiate projects, seminar and workshops that would encourage teachers to explore or even to take risk in developing new strategies that would cater to 21st century learners.
- c. **Schools heads** may strive develop the culture of excellence by giving credit and recognition to teachers who are always on tract of developing and utilizing instructional tools which are not traditional but is inventive and creative.
- d. **Parents and community** can go along with the school is aiming by participating and communicating with the school with regards to what they can do or how they can help in the promotion of new instructional tools which in turn would benefit their children and the citizen of the community.

- e. **Future researchers** can further investigate on the effect of manipulative and other instructional tools which are products of teachers' ingenuity in promoting excellence in teaching.

Reflection

Teaching and learning is a life long journey. Not everything is already invented or discovered in the field of teaching. Just like human language, it is alive and continues to develop as generations come and go. The 21st century learners require 21st century teachers, otherwise, teaching and learning would just become a commercial business that would suffice material and financial needs of teachers. Teaching and learning shouldn't be a mismatch in a sense that teachers should plan decisively and systematically every valuable meeting with the learners.

The researcher learned that teachers should not settle for mediocrity. Learning can happen by chance, but high achievement is a result of careful planning and delivery. A teacher should continue to discover and updates himself, explore not only his own world but more importantly the world of the learners. He needs to reach out and not just sit down. He is step into their shoes and not be left behind by traditions. Sore high dear teachers and readers! Continue to uplift the education standard. Touch the future by teaching learners in a way that they will challenge them to make their world a better place.

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Essentials of Home Visitation: Teachers', Learners' and Stakeholders' View

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Abstract

This paper highlights an in-depth study on the view of teachers', learners' and stakeholders' on the need for home visitation. A study on the effect of teacher's home visitation to the academic performance of the learner is also a focus of this research. Encompassing three years of home visitation for the learners of Talangan Integrated National High School, the teacher-researcher was able to gather data on the academic performance of the learners during their first semester, particularly the General Academic Strand (GAS) and Accountancy, Business and Management (ABM) strands of Senior High School. The explanatory-sequential mixed method of research was used – quantitative followed by qualitative method. Thirty teachers, 74 learners, and 74 stakeholders were interviewed on the context of home visitation and their responses were recorded, analysed and interpreted. Triangulation was applied to have a comprehensive conclusion from the data gathered through close- and open-ended questionnaires and personal interviews to respondents. It was revealed that home visitation significantly helps in increasing the academic performance of learners from 85 to 85.33, with p-value 0.01 (alpha level 0.05). Teachers, learners and stakeholders all agree that home visitation helps on the following key essentials of home visitation - establishing contract between teacher, learner and parents; precautionary measure, and not remedy to learner problems; aid in maintaining good academic performance; creating a home extension of learning and evaluation; and inculcating responsible citizenship for future leaders in community. Recommendations to target groups of people were given at the end of the study.

Key words: home visitation, teacher, learner, stakeholder, parents, community

Introduction

“People don't care how much you know
until they know how much you care.”

John Maxwell

Teachers, learners and stakeholders play a vital role in the educative process, as well as the improvement of school performance. The enriched engagement of the school-

community partnership, both internal and external stakeholders, is one of the secrets of a highly developing school. There has never been a strong educational foundation without the reporting of the school progress to the parents, community and other stakeholder.

Since the Senior High School program was implemented in Talangan Integrated National High School, the author-researcher, who is also the adviser of grade 11 GAS class for three years, has been conducting home visitation during the first semester of school year. This is done to all learners and not to chosen few only. Interview to parents and learners are being done to have quality time during visits. Acquaintance to family members and having thorough knowledge of learner's environment at home is one of the goals of this important task of being an adviser.

Up to what extent does this home visitation create impact to learners, parents and community? Does this voluntary act significantly affect learners' academic performance? What are some things that home visitation contribute to family, community and other stakeholders?

This study covers a three-school-year period from the time the Senior High School program was implemented up to present. It has in mind the benefit to learners, school, family, community and other stakeholders, as this paper will look deeper into the purpose and importance of home visitations to both public and private students.

Background of the Study

Home visitation, basically, is the solution of the Department of Education whenever a learner is having absenteeism behavior or in the verge of dropping out from school. The reminder to teachers at the bottom of School Form 2 (SF2) or what is called the Daily Attendance Report of Learners states this, "The adviser will provide necessary interventions including but not limited to home visitation to learner/s who were absent for 5 consecutive days and/or those at risk of dropping out." On this note, home visitation is seen as a solution and not a practice for teachers. Also, teachers might think that not all learners are worthy of home visitation, but only those who have the tendency to drop out from school and those with habitual absenteeism. That is one of the reasons this study is conducted – to give clear-cut notion or concept about home visitation.

Dep Ed Order No. 2, series of 2015, entitled Guidelines on the Establishment and Implementation of the “Results-Based Performance Management System (RPMS) in the Department of Education” highlights the use of “Individual Performance Commitment and Review Form” which evaluates teacher’s performance once a school year. For Teachers I,II and III positions, it can be seen under School, Home and Community Involvement area that the teacher is expected to visit 3% of the students in his class. This is giving us the order or command of home visitation, but not the heart of it, for who knows if there is more than 3% of the class who has family problem? And how would the teacher know that if he will not visit the learners’ home? Thus, this study would look deeper into the aspect of home visitation. Is this really needed? Do all learners deserve to be visited at home? What is the view of the teachers, learners and stakeholders on home visitation?

Theoretical Framework

The model that guided this study in looking deep into the aspect of home visitation is that of Epstein (1995). He developed a model with four established pattern with regards to the partnership of school and community.

1. Partnerships between home and schools tend to decrease across grades *unless* schools develop and implement appropriate partnership practices at each grade level.
2. Affluent communities have more family involvement on average, *unless* schools in distressed communities work to build positive relationships with students’ families.
3. Schools in distressed communities tend to make more contact with families about problematic behavior, *unless* a balanced partnership program that includes contacts about the positive accomplishments of students is established.
4. Fathers, parents who are single, who are employed outside the home, or who live far from the school tend to be less involved at the schools, *unless* the school organizes opportunities for families to volunteer at various times and places to support the school and children.

The first pattern seems to support the cliché that the best teachers need to be assigned to lower grades. They are the ones who are energetic, very patient, has a closer relationship with parents of learners and has so many ideas disciplining kids. But it is also true that the youth of today poses many problems especially on their behaviors.

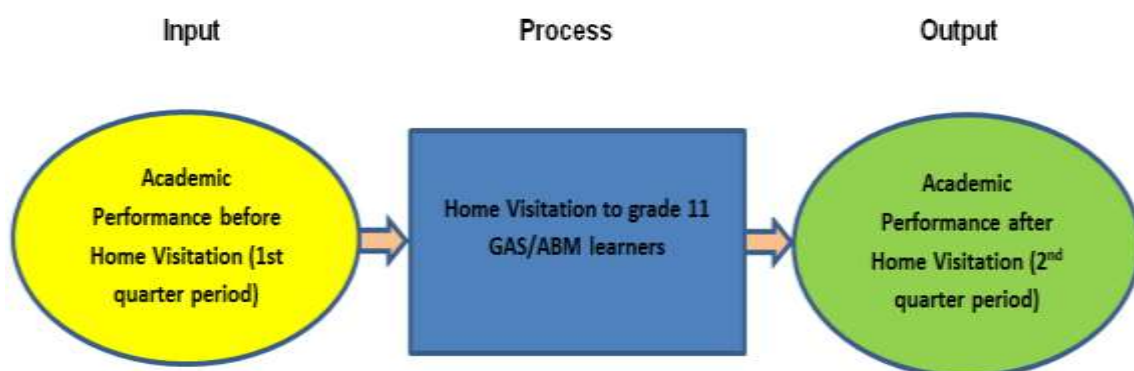
The second pattern speaks of the vitality of teachers in private schools in having partnership with parents unlike the teachers in public schools. Considering the teacher-to-student ratio, private schools have more opportunity in getting to know the parents of each child.

The third pattern has been observed for many years, that when there is home visitation, it is suspected that the learner visited did something wrong like frequent absenteeism. It is very seldom that people view home visitation as a reward for learner's achievement in school.

The fourth pattern speaks of learners with guardians who are not their parents, that is why their parents are not active in dealing with school matters of their child, or they are not usually present when there is school activity where parents are needed. These are scenarios wherein teachers think that visitation is needed because the learners most of the time are misguided when parents are away from home.

This model with four patterns seems to be true and prevalent in our society. And though this model sounds negative to be used as the skeleton or building block of this study, the researcher prefer to start on this viewpoint, and in the end, would like to leave the readers the choice if this should happen in a school-community partnership or not.

Conceptual Framework



The figure above shows the framework for this study. The Input contains the academic performance of learners before the conduct of home visitations. The Process box is solely composed of the home visitation to learners, while the Output comprises that academic performance of learners after the conduct of home visitations.

Statement of the Problem

This study will aim to determine the effectiveness of having home visitation to Senior High School learners of Talangan Integrated National High School to their academic performance.

Specifically, it seeks to answer the following questions:

- 1.) What is the mean level of academic performance of grade 11 GAS/ABM learners during the first quarters of three consecutive school years (s.y. 2016-2017, s.y. 2017-2018, and s.y. 2018-2019)?
- 2.) What is the status of home visitation to learners of grade 11 GAS/ABM class for the three consecutive school years?
- 3.) What is the mean level of academic performance of grade 11 GAS/ABM learners during the second quarters of three consecutive school years?
- 4.) Is there a significant difference in the academic performance before (first quarter grading period) and after (second quarter grading period) home visitation?
- 5.) What is the teachers', learners', and stakeholders' view of home visitation in the following aspect:
 - a. Establishing contract between teacher, learner and parents;
 - b. Precautionary measure, and not remedy to learner problems;
 - c. Aid in maintaining good academic performance;
 - d. Creating a home extension of learning and evaluation; and
 - e. Inculcating responsible citizenship for future leaders in community?

Hypothesis

The initial solution to the problem posed at the beginning of the study is stated here: There is no significant difference in the academic performance before (first quarter grading period) and after (second quarter grading period) home visitation.

Scope and limitations

This study covered a period of a three school year period – school year 2016-2017, school year 2017-2018 and school year 2018-2019. The academic performance to be compared for the three batches of General Academic Strand (GAS) and Accounting, Business and Management (ABM) came from the performance task average of first quarter and second

quarter grading period, which is the first semester of each school year. The choice of first semester only is for the simple reason that Senior High School learners change their subjects every semester.

Review of Related Literature

Home visitation is not just an issue in education, but has been trend in health and nutrition to many countries. Research of Schmit et al (2015) “supports the notion that home visiting programs can enhance parenting and support young children’s early development with long-term outcomes for children, parents, and public cost savings.” But Byrd (2012) admitted that “Home visits are not a magical solution for every problem. There are many challenges surrounding home visits. On the side of the schools, they take time, which is at a premium for educators. On the side of the families, home visits can be challenging for various reasons.”

If the academic performance is the issue, Gorter-Reu & Anderson (1998) found out that “teachers who make regular home visits feel that it is well worth the time and emotional effort due to the significant payoffs in the classroom.” Directly and indirectly, academic performance is positively affected because of the confidence gained by the learner when he is visited and encouraged by the teacher. Even the Tasmanian Department of Education has this guiding principle home visitation, “In order to achieve change and improved learning outcomes for students, it is often necessary to work with or meet family members outside the school environment.”

In the article written by Borba (2009) about caring for English learners (ELs), he said, “establishing firm school-home relations is vital to working with all students and their families, but presents some challenges for ELs.” Though this challenges may be present, the reward is indeed outstanding. In the study made by Gichohi (2015), using 52 schools as samples, he found out that result in academic performance is related to the participation of stakeholders in creating school policy. This also has something to do with home visitation because through this teacher activity, the updates in school is being brought to their knowledge, and thus, their response will also be brought to school. The result of this is parallel with the result of the study made by Adjei and others (2008) of South Africa. In their study, they made use of 45 selected private and public schools. They found out that those

schools which have a community involvement in school governance has highly effective teachers, thereby greatly contributing to learners' academic performance.

Tondi (2014) of Tanzania made an analysis of the stakeholders' view of the quality of education in their country. Stakeholders lined up many problems and shortcomings in the education system. At the end of his dissertation, Tondi recommended the encouragement stakeholders' participation in the governance of the school. One of the ways this encouragement can be done is through home visitation. NEA President Dennis Van Roekel (2008) of Washington D.C. made a declaration, "Parents, families, educators and communities—there's no better partnership to assure that all students pre-K- to high school—have the support and resources they need to succeed in school and in life."

Wang and Haertel (nd) made a comparison between schools with low teacher-parent relationship and those with high level of it. They observed that the impact can be seen in students' learning. Where there is high level of parent involvement, the educational system is seen effective because of good students' learning and well-being. NEA Education Policy and Practice Department of Washington D.C. (2013) encouraged and said, "Parents and community members must have a strong vested interest in the success of the schools and must co-own the outcomes produced."

The above-mentioned readings on home visitation, parent-teacher relationship and stakeholders' involvement help in the establishment of concrete support to respondents view on home visitation.

Research Design

This study followed an explanatory-sequential mixed method, which was quantitative followed by a qualitative study. First, the research dealt with the effect of the home visitation to the academic performance of the learners – whether the process of home visitation did a significant effect to the learners' performance or not. This also included the rating of home visitation done. This first part constituted the quantitative part of the study. Second, survey questions concerning the concept of home visitation were distributed to the respondents – teachers, learners and stakeholders. This second part constituted the qualitative part of the study. Third, to complete the triangulation (ratings, survey question, and verification/clarification), interview to selected respondents were conducted, verifying their

answers to the survey questions distributed, and asking for explanations on the answers they had provided.

Population

To determine the sample size of learner respondents, the Slovin's Formula was used.

$$n = \frac{N}{1 + Ne^2}$$

For the school year 2016-2017, there were 35 GAS learners. For the school year 2017-2018, there were 28 GAS learners. And for the school year 2018-2019, there were 27 GAS and ABM learners, combined. The sum total of respondents for three consecutive school year was 90 learners. Using the Slovin's Formula, and setting the margin of error to 0.05, the number of learner-respondents needed was 73.47 or 74. Setting the proportional number for the three school year population of GAS/ABM learners, the result was shown on the table below:

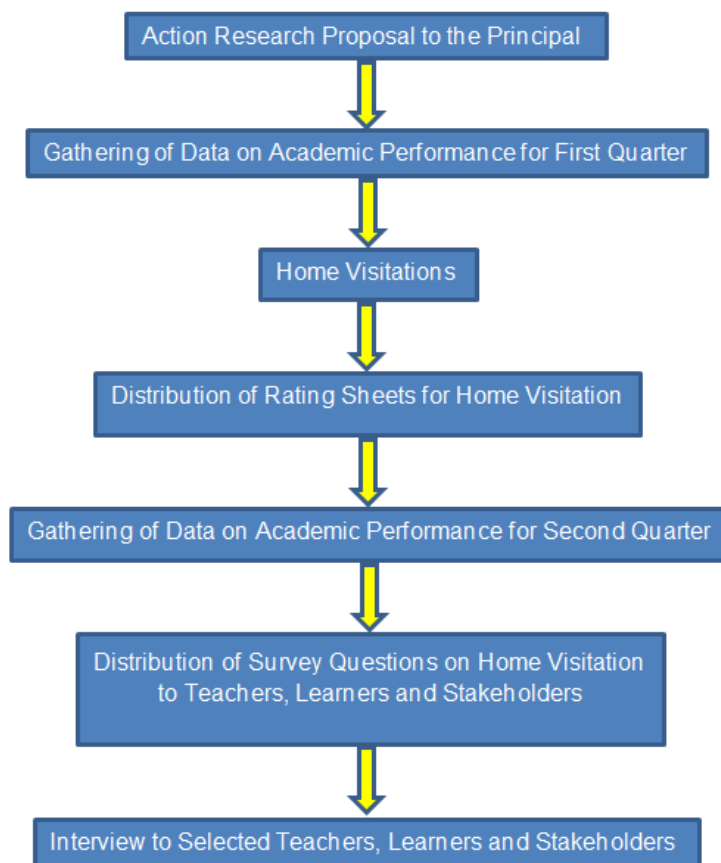
| School Year | GAS/ABM Enrollees | Percentage | Sample Size |
|-------------|-------------------|------------|-------------|
| 2016-2017 | 35 | 38.89% | 29 |
| 2017-2018 | 28 | 31.11% | 23 |
| 2018-2019 | 27 | 30% | 22 |
| | 90 | 100% | 74 |

To complete the respondents, including the teachers (Junior and Senior High School teacher-advisers) and stakeholders (parents of GAS/ABM learners and community leaders), the table below presents the complete respondents for this study:

| School Year | Teachers | Learners | Stakeholders | |
|--------------|----------|----------|--------------|------------|
| 2016-2017 | 30 | 29 | 29 | |
| 2017-2018 | | 23 | 23 | |
| 2018-2019 | | 22 | 22 | |
| Total | 30 | 74 | 74 | 178 |

Data Gathering Procedure

The flowchart below shows the courses of action taken to gather data. This also shows the ethical consideration involved by having the permission and support of the School Head on the study conducted.



Presentation, Interpretation and Analysis of Data

This part of the study shows the result of gathering and processing data that answered the questions posted at the beginning of the study. Interpretation and analysis follows every presentation.

Academic Performance of GAS/ABM Learners, First Quarter Period

| School Year | Mean | SD | Equivalent |
|----------------|--------------|-------------|-------------------------|
| 2016-2017 | 84.29 | 4.08 | Approaching Proficiency |
| 2017-2018 | 84.94 | 2.83 | Proficient |
| 2018-2019 | 85.78 | 1.92 | Proficient |
| Average | 85.00 | 2.94 | Proficient |

Legend:

| | |
|--------------|-------------------------|
| 90 and above | Advanced |
| 85 – 89 | Proficient |
| 80 – 84 | Approaching Proficiency |
| 75 – 79 | Developing |
| below 75 | Beginning |

The table above shows the academic performance (performance task average) of 74 GAS/ABM learners during their first quarter period. GAS learner of s.y. 2016-2017 had a mean academic performance of 84.29, with $sd = 4.08$. This is interpreted as approaching proficiency. GAS learner of s.y. 2017-2018 had a mean academic performance of 84.94 (with $sd = 2.83$) which is interpreted as proficient. While GAS/ABM learner of s.y. 2018-2019 had a mean academic performance of 85.87 (with $sd = 1.92$) which is interpreted as proficient. Average for the three consecutive years of first quarter period is 85.00 which is interpreted as proficient. The average sd which is 2.94 indicates a group which is heterogenous.

Home Visitation Rating

| Indicators | Mean | SD | Interpretation |
|---|-------------|-------------|---------------------------------|
| 1. The home visit that happened became is significant. | 4.79 | 0.42 | Very Highly Satisfactory |
| 2. The parents are able to relate the student's behavior at home. | 4.74 | 0.56 | Very Highly Satisfactory |
| 3. The teacher is able to relate the student's behavior in school. | 4.74 | 0.45 | Very Highly Satisfactory |
| 4. Both the parents and learner long for another visit next time. | 4.58 | 0.77 | Very Highly Satisfactory |
| 5. The teacher was warmly welcome when he visited home. | 4.95 | 0.23 | Very Highly Satisfactory |
| 6. Parents and learner were delighted with the visit. | 4.79 | 0.42 | Very Highly Satisfactory |
| 7. I believe that the home visits can help learners to be motivated. | 4.84 | 0.50 | Very Highly Satisfactory |
| 8. The learner and his/her parents were prayed for during the visit. | 4.79 | 0.42 | Very Highly Satisfactory |
| 9. The family and the teacher both gained respect during the visit. | 4.95 | 0.23 | Very Highly Satisfactory |
| 10. The home visit is a step toward helping the learner in schooling. | 4.84 | 0.37 | Very Highly Satisfactory |
| Average | 4.80 | 0.44 | Very Highly Satisfactory |

Legend:

| | |
|-------------|--------------------------|
| 4.21 – 5.00 | Very Highly Satisfactory |
| 3.41 – 4.20 | Highly Satisfactory |
| 2.61 – 3.40 | Satisfactory |
| 1.81 – 2.60 | Fairly Satisfactory |
| 1.00 – 1.80 | Not Satisfactory |

The table on the previous page shows the average ratings of the 74 learners and 74 parents who were visited at home for the successive three years. Item 1 which tells of the

significance of the home visit gained a rating of 4.79 (with sd = 0.42) which is interpreted as very highly satisfactory. Item 2 which deals with the opportunity of parents to relate to the visiting teacher the student's behavior at home received a rating of 4.74 (with sd = 0.56) which is interpreted as very highly satisfactory. The third item which indicates the opportunity of the teacher in relating to parents the student's behavior in school was given a rating of 4.74 (with sd = 0.45) which is interpreted as very highly satisfactory. The fourth indicator which is about the longing of the learner and the parents for another visit was rated 4.58 (with sd =0.77) which is interpreted as very highly satisfactory. The fifth indicator which is the warm welcome of the parents and learner to the visiting teacher garnered 4.95 (with sd = 0.23) which is interpreted as very highly satisfactory. Indicator number 6, the delight of the parents and learner with the home visit conducted, was set at 4.79 (with sd = 0.42) which is interpreted as very highly satisfactory. Indicator number 7, the perception that the learner is motivated when there is a home visit, was found out to be at 4.84 (with sd = 0.50) which is interpreted as very highly satisfactory. Teacher's prayer for the situation and needs of the family, indicator number 8, was rated 4.79 (with sd = 0.42) which is interpreted as very highly satisfactory. The respect gained by the family and the teacher, indicator number 9, was given a rating 4.95 (with sd = 0.23) which was interpreted as very highly satisfactory. Last, the home visit as a great help for the learner in his schooling was perceived to be at 4.84 level (with sd = 0.37) which is also interpreted as very highly satisfactory. The average rating for the teacher's home visit is 4.80 which is interpreted as very highly satisfactory. The sd which is 0.44 shows that the answers of the parents and learners agrees with one another.

Academic Performance of GAS/ABM Learners, Second Quarter Period

| School Year | Mean | SD | Equivalent |
|----------------|--------------|-------------|-------------------|
| 2016-2017 | 85.08 | 4.69 | Proficient |
| 2017-2018 | 84.76 | 2.79 | Proficient |
| 2018-2019 | 86.14 | 1.78 | Proficient |
| Average | 85.33 | 3.09 | Proficient |

Legend:

| | |
|--------------|-------------------------|
| 90 and above | Advanced |
| 85 – 89 | Proficient |
| 80 – 84 | Approaching Proficiency |
| 75 – 79 | Developing |
| below 75 | Beginning |

The table in the previous page shows the academic performance (performance task average) of 74 GAS/ABM learners during their second quarter period. GAS learner of s.y. 2016-2017 had a mean academic performance of 85.08, with $sd = 4.69$. This is interpreted as proficient. GAS learner of s.y. 2017-2018 had a mean academic performance of 84.76 (with $sd = 2.79$) which is interpreted as proficient. While GAS/ABM learner of s.y. 2018-2019 had a mean academic performance of 86.14 (with $sd = 1.78$) which is interpreted as proficient. Average for the three consecutive years of first quarter period is 85.33 which is interpreted as proficient. The average sd which is 3.09 indicates a group which is heterogenous.

Effect of Home Visitation to Academic Performance

| Incidence | Mean | SD | t-comp | t-tab | P-value | Decision |
|------------------------|-------|------|--------|-------|---------|-------------|
| Before Home Visitation | 85.00 | 2.94 | -2.69 | 2.00 | 0.01 | Significant |
| After Home Visitation | 85.33 | 3.09 | | | | |

$\alpha = 0.05$

The table above shows the t-test result (paired sample mean) of the before and after home visitation. Since the absolute value of the t-computed (2.69) is greater than the t-tabular (2.00), it can be said that with 95% level of confidence, home visitation significantly affects the academic performance. When there is teacher's home visitation, learners increase in their performance in school. This conclusion is supported by the P-value (0.01) which is lower than the alpha level (0.05).

Directly or indirectly, learners are motivated when the teacher or adviser visits him at home. Some rules are explained to him and because of that, he is able to obey from the heart the policy of the school. The bright future ahead of him is explained by the teacher and it is supported by the parents. There is also a closer relationship that is happening when the teacher reaches out to the family of the learner. Intimidation between the learner and the teacher is removed. The heart of the teacher towards the learner is displayed. Lessons that are difficult can be explained to the learner when the teacher finds time to help the learner at home. Additional activities can be given, and therefore, enhancement of skill happens.

The result of this study is parallel with the result of the study made Gichohi (2015) and Adjei (2008). These two studies and the present one support home visitation as an aid in increasing the academic performance of learners. The skill and mastery of the teacher may contribute but his effort in bringing close the school at every home is an indispensable one.

Response to Survey Questions

Here are selected responses to the survey questions.

| Survey Question | Selected Responses |
|--|--|
| <p>1. When teachers visit students at home, what do you think they feel or thought of?</p> | <p>Teachers</p> <ul style="list-style-type: none"> * I think they would feel awkward and surprised. * They will feel that we are concern and that we care for them. * Parents and students feel that they are important whenever teachers visit them at home. * Learners are ashamed but at the same time, they feel glad that the teacher has concern with their studies. |
| | <p>Learners</p> <ul style="list-style-type: none"> * My adviser gives importance to us, his advisory, and he wants to know us inside our house. I'm glad to meet a teacher like him. * I felt happy because it is the first time a teacher visited our house. * I was glad and joyful because there is a teacher that finds time to visit his students, and I really appreciate this. * Happy because my teacher visited at home. Nervous because my parents would think that I have a failing subject that is why my teacher visited. |
| | <p>Stakeholders</p> <ul style="list-style-type: none"> * Curiosity and tense, because they don't know what is the intention of the teacher why they visit at home. * They are proud, most of us, their parents that their adviser visited us. Ours is the honor that the adviser of our child visited us at home. * The student is happy because the teacher is allotting time for our family. This is a way of showing to learners their worth. * Learners are happy because it is seldom that a teacher visits home. |
| <p>2. Do you think students are motivated when you they are visited at home? Why?</p> | <p>Teachers</p> <ul style="list-style-type: none"> * Yes, I think it's because student will feel that the teacher is concerned about them, that there is someone who cares. * Yes, because they will feel that they are valued. * They feel important. At the same time, we can establish rapport with parents, thus, ensure their cooperation and support in guiding their children concerning their studies. * Yes, because they feel loved by the teacher and it gives a sense of being important to them and to others. |
| | <p>Learners</p> <ul style="list-style-type: none"> * Yes, because our teacher will know us deeper, and this will cause us to study well. * Yes, because this kind of home visitation is such an inspiration that the teacher has an effort to do home visitation. * Yes, because we are already determined in studying, but become more determined when we learned that our adviser is taking great effort to visit us in our home. * Yes because I can have updates about my standing in studies. |
| | <p>Stakeholders</p> <ul style="list-style-type: none"> * Yes, because in that way the parents and teachers will have the opportunity to talk about the situation of the learner. * Yes, because they feel they are important and given time. Another thing is that the parents and the teacher are having communications. * Yes, learners are motivated when there is home visitation because they become inspired of the teacher and also encouraged because of the advice and concern to him. * Yes, especially when the teacher visits at home and not just an encounter in school. It is a privilege that we are visited by the adviser of my daughter. |
| <p>3. What is the part of home visitation that you like the most?</p> | <p>Teachers</p> <ul style="list-style-type: none"> * The trip on the way to learner's home. * I like most when I feel they are confident to tell their concerns about their children's problems in school. Also, I like it when there is a mutual trust between me and the parents. * When you are searching for the house of the learner, and you are able to find it * When I understand or realize the true reason of absence and problem of the learner |

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| | <p>upon conversation with the parents</p> <p>Learners</p> <ul style="list-style-type: none"> * When the teacher ask our parents our routine at home, that's when I realize that our parents are looking are monitoring us also at home, and they are also concerned to us. * I like the part where my teacher make a prayer for me and my family. * Praying our Almighty God, because through this, we can feel His presence, and we can also bring to Him our requests. It lightens our load. * When the teacher ask to my parents my behavior at home, and when my parents and teacher already share their own life experiences. <p>Stakeholders</p> <ul style="list-style-type: none"> * The case of the teachers to their students on what is going on around the house, likewise the parents in school. * The most important part of the visitation is that we've met personally the teacher and he met us also. * The most important part in a home visitation is the prayer of the teacher to all members of the family. * The teacher and I are having time to ask the situation of the learner/our daughter in school and at home. |
| <p>4. Would you like to continue (or start) home visitation to students? (If you will become a teacher, will you also do home visitations to your students?)</p> | <p>Teachers</p> <ul style="list-style-type: none"> * Yes, because I can see positive results when we visit them. * It depends, if the learner is worthy to be visited. * I feel it must be done soon, and continue what I have done previously. * Yes, I support home visitation as long as the address of the learner does not post danger to the life of the teacher. <p>Learners</p> <ul style="list-style-type: none"> * Yes, because as a student, I am learning that it is a good thing to know the behavior of learners at home. * Yes, I will. Because it is very nice and it can build better relationship between the student and the teacher. * Yes, because it can help a lot to learners in being inspired and determined in studying. * Yes indeed because it will greatly help in knowing the background of the learners and because of that I can deeply understand them. <p>Stakeholders</p> <ul style="list-style-type: none"> * Definitely, yes. Because I want to know each and every one of my students for me to know what help I can extend to them. * Maybe yes, for the development of the school and for the learner as well. * Yes, so that I can know the situation of the student at home. * Yes, because it is one of the requirements of teachers in school. |
| <p>5. With regards to the community, what is the direct or indirect effect of home visitation to the people or youth in the community?</p> | <p>Teachers</p> <ul style="list-style-type: none"> * The direct effect of home visitation to people/youth is that they would feel secure. * Home visitation promotes cooperation and support of the community to school's projects. * Through home visitation, learners see their importance to the community. * Through home visitation, the school is able to show to the community its concern, especially to those who seldom go to school. <p>Learners</p> <ul style="list-style-type: none"> * Through home visitation, the school and the community is having a good interaction or communication. * The direct effect is that it can build good relationship with others and the indirect effect is that it can control the behavior and discipline of an individual. * The direct effect is that learners will feel that he is important in this world, while the indirect effect is the motivation it created to the one visited. * The direct effect of home visitation in the community is the good relationship that it will create to the parents and their child. <p>Stakeholders</p> <ul style="list-style-type: none"> * The direct effect for me is good. We can easily solve a problem if we have communication. On the other hand, maybe, the others are thinking that home visitation is only a waste of time because some teachers don't care with the community, how much more the family of the learners. * For me, it is right that the superior will visit his subordinates. * The direct effect is that sometimes the peace in a family is maintained though there is |

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| | <p>problem, and that happens because of the concern and prayer of the teacher who visited. * Home visitation helps in understanding what is happening in a community through the family that is visited.</p> |
| <p>6. View of Home Visitation a. Establishing contract between teacher, learner and parents</p> | <p>Teachers * Teachers can monitor the learner’s progress (behavior, academics, etc.) while parents can do follow-up at home. * It’s okay so that both the parents and the learners will agree on important things. * Full support and cooperation of students and parents can be assured whenever contract has been established. * This is the most important, to have a contract between the school and the teacher if they want to come back to school after that the school has kicked him out of the school and advised to find another one.</p> <p>Learners * It is a good thing to have an agreement between the parents, learner and teacher, so that they will have a good relationship and they will be open to each other. * It is nice that the teacher, student and parents can help each other regarding some issues and other things. * It has good purpose helping not only the learner, but also the teacher and the parents. * Closed conversation happens between parents and teacher during this kind of visit. The student will be encouraged to study well if he sees the support of the parents and the teacher.</p> <p>Stakeholders * I don’t believe in contract but I strictly follow whatever rule that causes good for our children because I myself have my own rule to my children which sometimes I don’t want them to break. * When the teacher visited us, he informed us what he wanted to do when our child is absent. I concede with the agreement that when my child was not able to go to school, I will receive a text or call from the teacher. * For me, this is a big aspect of home visitation because the teacher will know the ideas of the learner and the parents. We also get to know the teacher better. * Through home visitation, the learner can become more obedient to his teacher.</p> |
| <p>6. View of Home Visitation b. Precautionary measure, and not remedy to learner problems</p> | <p>Teachers * Teachers can give/suggest solutions to learner’s problem who intends to drop-out from school. The options can be given to learner depending on the situation. * Nothing can happen if the learner and the parent will not cooperate. * To prevent rather than to treat is the best principle that we must adopt in handling students/learners. * Through home visitation, learner’s quitting from school is avoided.</p> <p>Learners * Miscommunication will be avoided through home visitation. * Home visitation is good so that we can prevent some problems of the learner. The teacher and the parents can talk about this. * This is a must, as a famous maxim says, “Prevention is better than cure.” It’s easier to avoid problems if it is mediated not to happen even at the beginning, so that future problems will not intensify.” * Through home visitation, advice of parents and teacher to the learner can be given so that initial, small problem can be mitigated.</p> <p>Stakeholders * Communication between the parents and the teachers regarding the problem of the child. Conversation should be with the child so that he will know it also. * When the teacher tells us what our child has been doing in school or if there is special activity, our worries our gone because we are parents. * Through this, possible problem that may arise in the future will be avoided. Also, there will be an open discussion between the teacher and the parents. * When home visitation is done and the learner cooperates, he will not encounter deeper problems.’</p> |
| <p>6. View of Home Visitation c. Aid in maintaining good academic</p> | <p>Teachers * Providing assistance to learners would keep them on a good track in study but assistance should be continuous so that the result would be good. * Home visitation, heart-to-heart talk with students/learners, and being aware of their situation at home and their family relationship can really aid in maintaining good academic performance. * This happens because the teacher, through home visitation, can encourage the learner to</p> |

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| performance | <p>come to school always.</p> <ul style="list-style-type: none"> * Indeed, for when the teacher learns of the situation of the learner through home visitation, he does something to his teacher and learner process that would cater to the learner's need. <p>Learners</p> <ul style="list-style-type: none"> * The teacher can give advice to learner, especially when there is problem at home, thereby having a maintained good academic performance. * Home visitation is effective so that the learner could maintain good performance in school and his/her parent can guide them. * I agree with this because our study should be supported continually. * The parents can know the behavior of the learner in school, and because of that, the parents can help maintain good academic performance. <p>Stakeholders</p> <ul style="list-style-type: none"> * Always support the child wherever they want to be involved in school. Give them a courage to face every situation of the day, so that they will always feel our love for them. * If there are teachers who will visit and give advice to our daughter, then she will be a good and diligent student. * Yes, it can help maintain good academic performance, especially when assignments and projects in school will decrease so that they will have enough rest. * If the parents cooperate with the teacher who is the second parents, the academic performance can be maintained at its good standing. |
| <p>6. View of Home Visitation</p> <p>d. Creating a home extension of learning and evaluation</p> | <p>Teachers</p> <ul style="list-style-type: none"> * Teachers and parents should work hand-in-hand to help the student. * Giving or providing the family with the result of their child's evaluation is a good idea for them to monitor if their children are doing good in the classroom. * It depends on the family to be visited. * Relating the subject matter in real life is one concern of home visitation. Whatever learners accepted and recognized must be practiced at home. <p>Learners</p> <ul style="list-style-type: none"> * Through teacher's home visitation, learner's knowledge is enhanced and he will have ideas on how to use those knowledge at home. * It is very effective, so that the learner could apply what he/she had learned in school. * I agree with this because in school, we are being prepared and nurtured to survive in the reality of life. All learning in school can help in the course at home. * Through home visitation, the teacher can know if the learner is applying at home what he is learning in school. <p>Stakeholders</p> <ul style="list-style-type: none"> * The ability to learn, to apply, to do, to use, to work, to talk what is happening, expound, share ideas and new experiences everyday in school. * I am always ready with regards to the sharing of my child about the school. I am ready to listed and give advice. Also, if teachers visit, the knowledge of our daughter in socialization is enhanced. * Learners will become responsible with the things that is being asked of him like the lessons in school and simple household chores. * The teacher can check if the moral lessons acquired in school is brought at home. |
| <p>6. View of Home Visitation</p> <p>f. Inculcating responsible citizenship for future leaders in community</p> | <p>Teachers</p> <ul style="list-style-type: none"> * Through some visitation, we are teaching the learners to reach out to people, to be compassionate, concerned and sensitive to other people, especially people who need help in any form. * Indeed, learners need to feel becoming an institution for change through home visitation. * Yes, this can happen because we can be a model to our students we are visiting. * Through home visitation, we can save those students who are encountering problems in life. Those who have encountered deep problems in life are those who become strong in the future, thereby becoming an effective leader. <p>Learners</p> <ul style="list-style-type: none"> * Home visitation educates the learner on proper behavior, not only in school but also in the community, thereby preparing him to be a responsible leader in the future. * This could be a stepping stone for the learner to be a better leader in the future. * Home visitation is necessary because our country is thirsty of progress. That is why, the youth of today should be molded. As Dr. Jose Rizal said, "The youth is the hope of nation." * At home, it can be earlier seen if the learner will be a future responsible leader if all the tasks given to him in school and at home is being done well. <p>Stakeholders</p> <ul style="list-style-type: none"> * I encourage them to be what they wanted to be in school. I always push them on what |

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| | <p>they wanted to be in good ways only so that in the future they become a good leader.</p> <p>* It is a must that our child must be responsible, first of all at home, so that if she becomes a leader someday, she will be a good leader.</p> <p>* My son will become a model to his younger sister because of home visitation.</p> <p>* Through home visitation, the future of the student can be bright because he will learn to obey his parents and his teachers, thereby becoming a responsible leader.</p> |
|--|--|

The previous tables summarize some of benefits of home visitation:

1. Establishing contract between teacher, learner and parents – This aspect of partnership is important for school and community can go hand-in-hand in nurturing the youth of today. If the guiding principle in school is the same as at home, there will be no lapse of discipline and the learners would not be confused to what is right and wrong, thereby producing a well-rounded person to an individual.
2. Precautionary measure, and not remedy to learner problems – Most of home visits are for follow-ups of learners who are committing absenteeism and are about to drop out from school. But looking into this aspect would cause teachers and educators re-evaluate the effectiveness of home visitation.
3. Aid in maintaining good academic performance – The responses in the survey questions supports the result t-test that home visitation has a significant effect to academic performance. Nothing more can be added because it is a clear-cut benefit of home visitation, that increased academic performance follows when there is a healthy home visitation.
4. Creating a home extension of learning and evaluation – Home becomes a place for nurturing child, and not just the school, when the teacher gives effort in communicating to parents about the behavior and performance of the learner in school.
5. Inculcating responsible citizenship for future leaders in community – Learners see an example of servant-leadership from the teachers, that is why, when these youth become leaders someday, they will also reach out to their constituents and ask them help in bringing the best to their community.

Recommendation

Based on the findings that resulted from this study, the following recommendations are as follows:

1. **Teachers** reconsider home visitation as part of the teaching profession, not just an additional task but an indispensable one for a healthy school-community relationship and for the maintaining good academic standing of learners.
2. **School heads** initiate actions on encouraging teachers to do home visitation even to performing learners by disseminating the result of this study in School Learning Action Cell (SLAC).
3. **Learners** welcome home visitation as a positive reinforcement for the development of their total person. They should show appreciation when teachers schedule them for home visitation.
4. **Parents** show hospitality to teachers extending effort in making their home a school extension of learning and evaluation. Nothing can compare a teacher who has deep concern to learners.
5. **Community Leaders** embrace the fact that school cannot achieve their goals and visions without their support. Whenever there are school projects wherein they can be actively involved, they should find time in giving their share.
6. **Future researchers** explore on the role of non-government organizations and other institutions in bringing out the best in learners. Together with teachers' home visitation, community institutions can help in nurturing learners towards being an active workforce in the community now and in the future.

Reflection

As the researcher has been doing home visitations for three consecutive years, he is moved with more vitality in doing home visitations because of the result and findings in this study. His mind was more widely opened through the readings cited in this study, the result of observing the effect of home visitation to academic performance using statistics, the response gathered in written survey questions, and the ideas emanating from one-on-one interview with selected teachers, learners and stakeholders.

Helen Keller once said, "I long to accomplish a great and noble task, but it is my chief duty to accomplish small tasks as if they were great and noble." The researcher is moved by this principle of Helen Keller, in that, she don't look for bigger tasks to do, but just do tasks as they came and always consider them as big. The research believe in this maxim, too, as something he needs to apply in his life, not looking for big and great tasks but just considering small tasks as something that would touch lives. As educator, it is our chief duty

to touch lives and not just to learners' mind. When we extend our efforts to visit the family of students and learn of their ways, and because of that, adjust our method and strategies inside the classroom, then we have done a small task that has a great benefit to the lives of our learners.

May all those have read this small piece of work be inspired and do the command of our Master Teacher, Jesus, to serve others.

*“For even the Son of Man did not come to be served,
but to serve as a ransom for many.” Mark 10:45.*

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School Culture and Teachers' Work Values in Masapang Elementary School, s.y. 2018-2019

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Abstract

This study focused on determining the effect of the awareness of school culture to the work values of the teachers in Masapang Elementary School, Victoria, Laguna, school year 2018-2019. School culture cannot be easily changed over a period of time. It is already part of the daily routine of the people moving inside the school – teachers, learners and stakeholders. But having the awareness of the different school culture is something that the researcher investigated, whether or not it affects the teachers' work values. This study went on a quantitative design in doing an action research. Twenty elementary teachers became the respondent of this study. The school head, which is also one of the researchers, introduced a 45-item work values survey and 40-item school culture survey to determine the work characteristics of teachers and their perception of school culture. Then the researchers conducted a series of school learning action cell (SLAC) that centered on the discussion of different school culture in four dimensions – individualism-collectivism, power distance, uncertainty avoidance, and masculinity-femininity. To find out if their work values changed, a post survey was conducted. Data was recorded and processed. It was found out that work values significantly increased after the conduct of School Learning Action Cells. Specifically, 8 attributes of work values out of 15 had significant increase – management, surroundings, associates, aesthetics, prestige, independence, variety, and economic return. Recommendations to school heads, teachers, community officials and future researchers were given at the end of the study.

Key words: school culture, work values, individualism, collectivism, power distance, aggressivism, fatalism, masculine, feminine

Introduction

Quality education is a vital factor in the life-long learning of an individual; thus helping them acquire a better academic life and build better communications. Educational leaders and teachers greatly contribute in acquiring quality education. Further, positive school cultural values can produce competent teachers having high performance rate.

It is the culture that dictates how the people in a specific environment communicate with each other, deal with each other, and treat each other. It is not developed in a single moment in time when a group agrees with each other on certain norms, but is formed intentionally or unintentionally over a period of time, and is transferred from one generation to another. The leaders play an important role and are responsible in relaying the type of culture that he wants to develop within his premise. At the same time, the members or subordinates should cooperate in order for the prescribed norm to be realized.

The same thing happens in a school institution. The leader sets up the culture that he wants to implement as he lives up with the mission and vision and attains the objectives. The teachers, even the parents and students, display this culture that enables the institution to have an instinctive identity and allows them to attract clients. This culture stays as long as the leader remains, or is consistent with the culture that he wants to project. On the other hand, when one is not able to adapt to the culture, the person becomes alienated, but sooner or later learns to adjust because many persons are doing so.

Work values is another factor that has something to do with the operation of the school. It can be divided into fifteen different attributes – creativity, management, achievement, surroundings, supervisory relations, way of life, security, associates, aesthetics, prestige, independence, variety, economic return, altruism, and intellectual stimulation. With these in mind, the question arises. Can the knowledge or awareness of the different school culture affect the level of work values of elementary school teachers?

Background of the Study

Masapang Elementary School has been established since 1969. For 49 years, it has been known to produce quality graduates, including public servant Bert Lina. The school follows the mandate of Article XIV Section 1 of the 1987 Philippine Constitution which declares that the State shall protect and promote the right of every citizen to quality basic education and to make such education accessible to all. Together with the task of providing the basic educational needs, the school is facing the biggest challenge of having quality and excellence both on the educational services and among the graduates this educational institution has produced.

It is a usual notion that the environment where an individual thrive contributes much to the behavior of an individual. Take for example the basic institution, the family. If the

family has a close relationship and spends quality time with each other, the children grow with respect and cooperation. On the other hand, if the family misses some quality time and the members spend most of their time outside the house, the children grow with hostility and disrespect. This is parallel to the children's second home, the school. The culture in school inculcates behavior that the students learn everyday of their stay in school. The effect does not only permeate to the pupils or students, but to the teachers as well. This is the primary reason why the researcher decided to look at the issue of the school cultural values.

Yearly evaluation has become part of the routine so as to ensure that quality education is being delivered to the Filipino children. Also, this evaluation serves as a performance basis for those seeking for promotion. Added to the performance of the teacher inside the school are his or her work values. Several studies have highlighted the effect of work values to teachers' performance. But there is no study broadcasted that looked into the effect of awareness of school culture to teachers' work values. And so, this study is conducted.

Theoretical Background

In the book *Organizational Behavior and Management* by Ivancevich and Matteson (2005), four dimensions of cultural values are mentioned, as shown in Table 1.

Table 1.

School Cultural Values

| Hofstede's Dimensions | | | | |
|-----------------------------------|--|---------------------------|----------------------------------|------------------------------------|
| Region/ Country | Individualism- Collectivism | Power Distance | Uncertainty Avoidance | Masculinity- Femininity |
| North America (USA) | Individualism | Low | Medium | Masculine |
| Japan | Collectivism | High and low | High | Masculine and feminine |
| Europe | Individualism | Low/medium | Low/medium | Masculine |
| Anglo Germanic West Slavic and | Medium individualism | Low | Medium/low | Medium/ high |

| | | | | |
|------------------------|------------------------------|------|------------|---------------------------|
| West Urgic | | | | masculine |
| Near Eastern Balkan | Collectivism | High | High | Medium masculine |
| Nordic | Medium/high individualism | Low | Low/medium | Feminine |
| Latin Europe | Medium/high individualism | High | High | Medium masculine |
| East Slavic | Collectivism | Low | Medium | Masculine |
| China | Collectivism | Low | Low | Masculine and Feminine |
| Africa | Collectivism | High | High | Feminine |
| Latin America | Collectivism | High | High | Masculine |

The first dimension of culture aspect is individualism-collectivism. The culture of an organization may either be promoting self growth and individual advancement contributing to the whole, or group effort and togetherness in meeting the objectives. The countries exercising individualism are North America, Europe, Anglo Germanic West Slavic and West Urgic, Nordic, and Latin Europe. On the other hand, the countries exercising collectivism are Japan, Near Eastern Balkanic, East Slavic, China, Africa, and Latin America.

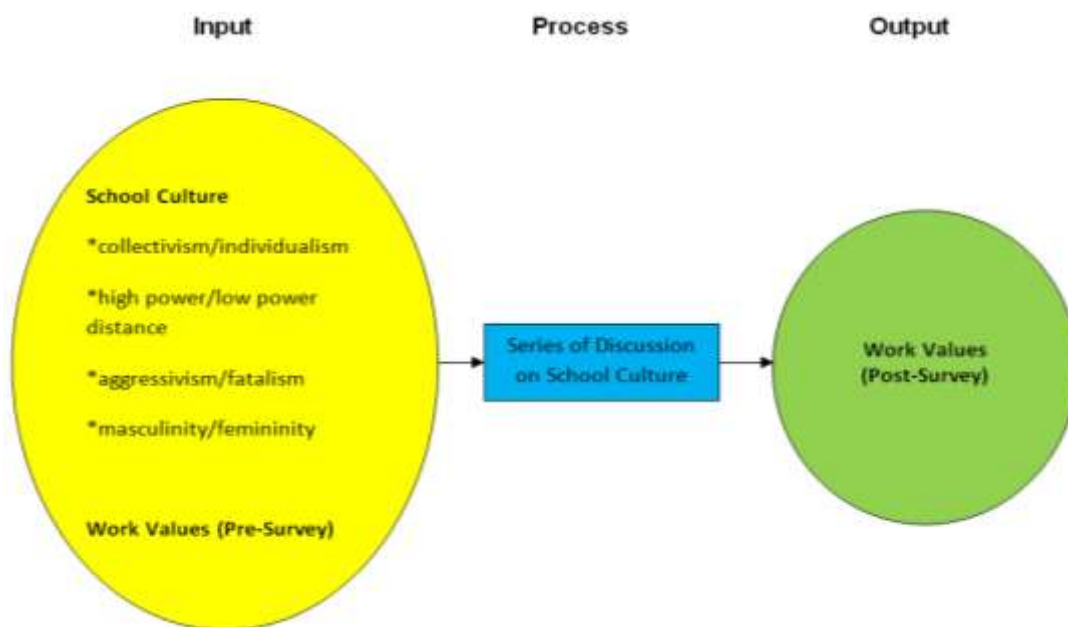
The second dimension of culture is power distance. The school may either be operating on a high power distance where the hierarchy is vertical and the relationship of superiors and subordinates needs channel, or low power distance where the hierarchy is flat and there is a holistic relationship. The countries operating on high power distance are Near Eastern Balkanic, Latin Europe, Africa and Latin America. On the other hand, the countries operating on low power distance are North America, Europe, Anglo Germanic West Slavic and West Urgic, Nordic, East Slavic and China. Japan's culture of power distance depends on the masculinity or femininity of culture. If the leader is masculine, then there is a high power distance, and if the leader is feminine, the power distance is low.

The third dimension is uncertainty avoidance. An organization may either have high uncertainty avoidance concept where risk-taking is not part of planning but is detailed,

cautious and specific; or low uncertainty avoidance where risk-taking is part of planning and there is the organization is pro-active. The countries who have a concept of high uncertainty avoidance are Japan, Near Easter Balkanic, Latin Europe, Africa and Latin America. On the other hand, the countries who have a concept of low uncertainty avoidance are Europe, Nordic, and China. There are also those whose uncertainty avoidance are medium – North America, Anglo Germanic West Slavic and West Urgic, and East Slavic.

The last dimension of culture is masculinity-femininity. The culture of an organization may be influenced by male gender because the leaders arising are male, or it can be influenced by female gender because the leaders arising are female. The countries with a masculine inclination in their leadership are North America, Anglo Germanic West Slavic and West Urgic, Near Eastern Balkanic, Latin Europe, East Slavic, and Latin America. On the other hand, the countries with a feminine inclination in their leadership are Nordic and Africa. There are also those with an inclination of both – Japan and China.

Conceptual Background



The figure above highlights the framework for this study. The Input contains the school culture which has four dimensions – collectivism/individualism, high power/low power distance, aggressivism/fatalism, and masculinity/femininity. It also contains the work values which is recorded as a pre-survey. The Process is consists solely of series of

discussion on school culture. While the Output comprises the work values which is a post survey after the series of discussion on school culture.

Statement of the Problems

This study focused on investigating the effect of awareness to school culture to teachers' work values in Masapang Elementary School, school year 2018-2019.

Specifically, it sought to answer the following questions:

1. What is the mean level of work values of the teachers in Masapang Elementary School before the SLACs in terms of the following:
 - a. creativity;
 - b. management;
 - c. achievement;
 - d. surroundings;
 - e. supervisory relations;
 - f. way of life;
 - g. security;
 - h. associates;
 - i. aesthetics;
 - j. prestige;
 - k. independence;
 - l. variety;
 - m. economic return;
 - n. altruism; and
 - o. intellectual stimulation
2. What is the status of teachers' perception of school culture in terms of the following:
 - a. individualism-collectivism;
 - b. power distance;

- c. uncertainty avoidance; and
 - d. masculinity-femininity
3. What is the status of the conduct of School Learning Action Cells (SLACs) with regards to school culture?
 4. What is the mean level of work values of teachers in terms of the fifteen indicators after the SLACs?
 5. Does the conduct of SLACs significantly affect the work values of teachers?

Hypothesis

The tentative solution to the problem posted above is this:

“The conduct of School Learning Action Cells does not affect the work values of teachers in Masapang Elementary School.”

Scope and Limitation

This study operates on the context that the conduct of SLAC may or may not affect the work values of teachers. It does not suggest change of school culture after the SLAC because in every dimension of school culture, there is a negative and positive implication, thus, communicating the baseline idea that there is no best school culture. While school culture cannot be changed over a short period of time, work values can. The series of mini-SLACs that have been conducted covers only a period of one month, that is, one session per week, covering the four dimensions of school culture.

Related Literature

Organizational culture has many forms or types. It can be an open culture or close culture. Open culture operates on holistic relationship where the leader is seen to easily mingle with subordinates. It encourages risk taking, initiative attitude, volunteerism, collectivism and collaboration. On the other hand, close culture operates with limited relationship, little risk taking, individualism and strict policy implementation. While open culture is more of people oriented, close culture is task oriented.

Pang's (2008) studied bureaucratic and cultural linkage as well as tight and loose coupling of schools since these represent several approaches to coordinating and directing staff activities. Tight coupling referred to 'coupling' teaching staff using clear goal orientation and communication and consensus among staff. Loose coupling emphasized a professional orientation and teacher autonomy. Further, bureaucratic linkage reflected formal means of coordination, like formality, bureaucratic control and rationality, while cultural linkage referred to informal approaches, like participation and collaboration, collegiality and achievement orientation. Pang's study showed that for the excellent schools in his sample "emphases on cultural linkage and loose coupling were the most consistent strategies ... tight coupling the next, but emphasis on bureaucratic linkage was quite diverse". He concludes that the first three are strong forces that bind people together within schools, while such an effect was not apparent for bureaucratic linkage. Despite this research, the empirical evidence for a relationship between organizational culture and school effectiveness is still rather weak. This is caused, to some extent, by the fact that various conceptualizations and operationalizations of school culture were used in the aforementioned studies.

Cohen's (2009) article about challenge of assessing educational climate towards leadership posed the issue on looking deep into the school culture that may affect school performance.

According to Smith (2012) teachers will reflect on their behavior and become conscious of the basic assumptions that underpin their interpretation of what they do. Basic assumptions are often operationalized into five groups: the organization's relationship to its environment, the nature of reality and truth, the nature of human nature, the nature of human activity and the nature of human relationships. These dimensions reflect the fundamental questions people face. For instance, the nature of human nature refers to whether humans are essentially 'bad' or 'good', and whether humans are basically "fixed at birth", or whether they are "mutable and perfectible". The second level consists of values and norms. Values refer to what teachers belief is 'good', 'right' or 'desirable'. Values, therefore, are to be considered as standards of desirability; they reflect what is conceived to be important to pursue or worth striving for in school. Teachers, for instance, may consider respect for others important, or may value collaboration with other staff members.

Collectivism is a social act that originated in company setting where laborers act as a group in dealing with the administration. Through the years, this social act become popular in school setting. In study made by Atienza (2009), she found out that there is a collectivism

culture in the schools where she conducted research. Teachers often consult parents, hold meetings and regular dialogues, guides and support the programs, and join the formulation of different activities for the enhancement of learning. Parents also involve themselves in the school activities. Teacher-parent rapport significantly affects the scholastic performance of the pupils. This clearly shows collectivism on the part of the parents and teachers. The study of Atienza (2009) supports the study of Dela Viña (2007) which concludes that there is a significant effect of the coordination among principals, teachers and parents to school performance.

On the other hand, DepEd Order No. 35, s. 2015, The Learning Action Cell (LAC) as a K to 12 Basic Education Program, highlights the conduct of school-based sessions for the continuing professional development and for the improvement of teaching and learning.

The above-mentioned readings shed light on this study because they have highlighted on the concept of school culture and other related issues.

Research Design

This study made use of an experimental method in its proceedings. According to Caraan, Jr. (2011), experimental method has something to do with a conduct of experiment, and it has become a viable method in advancing scientific studies. In this paper, the experiment is the conduct of a School Learning Action Cells (SLAC), with the researcher discussing the different dimensions of school culture to the teachers. Through this experiment of holding the teachers to complete interest or attention to the different cultures of an organization, the researcher investigated on the change of their work values over a period of time.

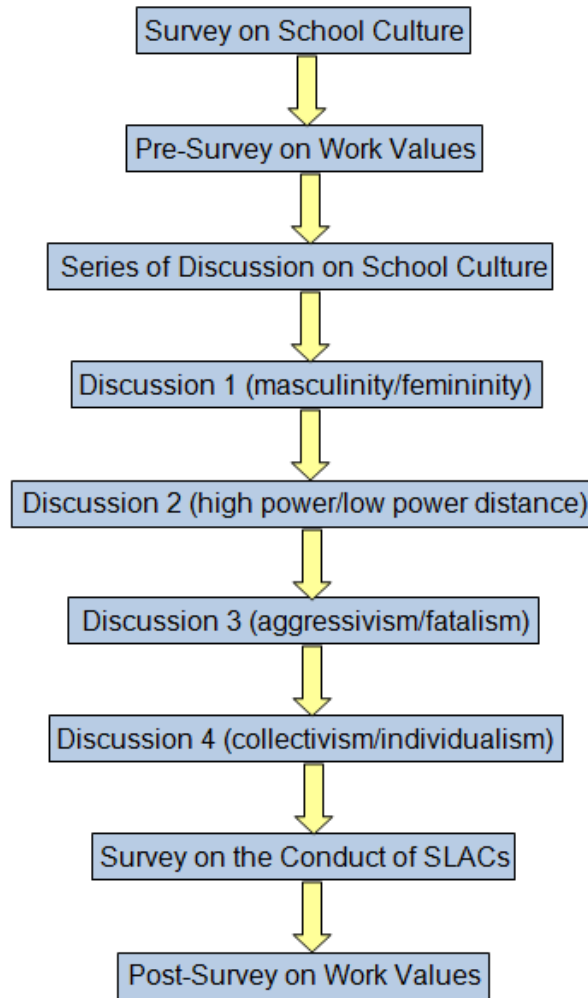
Population

Masapang Elementary School has a teacher-workforce of 21. They had become the respondent for this study. The table below shows the breakdown in terms of their position.

| Position | Frequency |
|------------------|-----------|
| Teacher I | 10 |
| Teacher II | 2 |
| Teacher III | 7 |
| Master Teacher I | 1 |
| Total | 20 |

Data Gathering Procedure

This research passed through ethical consideration by asking first for the permission of the District Supervisor if he would allow the study. The flowchart on the next page shows the procedure followed in gathering data that would answer the problems posted at the beginning of the study.



This flowchart showcases the path followed in gathering data that will answer the questions posted at the beginning of the study.

Presentation, Interpretation and Analysis of Data

This part showcases the presentation, analysis and interpretation of result that came out of the proceedings of this study.

Teacher's Work Value Before the SLAC on School Culture

| Attributes | Mean | SD | Interpretation |
|--------------------------|-------------|-------------|------------------------|
| 1. Creativity | 4.39 | 0.17 | Very High Level |
| 2. Management | 3.86 | 0.63 | High Level |
| 3. Achievement | 4.41 | 0.06 | Very High Level |
| 4. Surroundings | 4.37 | 0.14 | Very High Level |
| 5. Supervisory relations | 4.67 | 0.03 | Very High Level |
| 6. Way of life | 4.37 | 0.19 | Very High Level |
| 7. Security | 4.22 | 0.09 | Very High Level |
| 8. Associates | 4.20 | 0.43 | High Level |
| 9. Aesthetics | 4.25 | 0.09 | Very High Level |
| 10. Prestige | 4.16 | 0.29 | High Level |
| 11. Independence | 4.08 | 0.38 | High Level |
| 12. Variety | 4.18 | 0.06 | High Level |
| 13. Economic return | 4.14 | 0.07 | High Level |
| 14. Altruism | 4.51 | 0.07 | Very High Level |
| 15. Intellectual | 4.49 | 0.12 | Very High Level |
| Average | 4.29 | 0.19 | Very High Level |

Legend:

| | |
|-------------|-----------------|
| 4.21 – 5.00 | Very High Level |
| 3.41 – 4.20 | High Level |
| 2.61 – 3.40 | Moderate Level |
| 1.81 – 2.60 | Low Level |
| 1.00 – 1.80 | Very Low Level |

The table above shows the work values of the faculty of Masapang Elementary School in fifteen indicators. Teachers have a very high level of work values in terms of nine indicators – creativity, achievement, surroundings, supervisory relations, way of life, security, aesthetics, altruism and intellectual stimulation. On the other hand, they have a high level of work values in terms of six attributes – management, associates, prestige, independence, variety and economic return. All the attributes have a standard deviation of less than one, indicating that the teacher have homogenous answers.

Considering those attributes that attained very high level, six can be considered personal or those that does not concern relation to others, and they are creativity, achievement, way of life, security, aesthetics and intellectual stimulation. This may be the reason why they were able to rate these attributes very high level for themselves. The other three has something to do with others – surroundings, supervisory relations and altruism.

These three attained very high level of ratings from teachers, showing that the latter have the ability to easily adapt with their colleagues at work, and has matured emotional quotient of having concern with others.

Going over the six attributes that gained high level of ratings, three can be considered of personal issue – prestige, economic return and independence. These did not gained very high level, probably because the first two concerns financial, while the third one speaks of the attitude of teachers to mingle with others and to depend on them sometimes in matters of decision in school work. The rest of the three concerns relations to others – management, associates and variety. Teachers did not gained very high level on these areas probably because they still has issues on management or the system that easily changes over time.

Perception on School Culture

| Dimensions | | Mean | SD | Interpretation |
|-----------------------------------|---------------------|-------------|------|---|
| Individualism-Collectivism | Individualist | 4.16 | 0.36 | The school operates on collectivist culture. |
| | Collectivist | 4.24 | 0.40 | |
| Power Distance | Low Power Distance | 4.34 | 0.34 | The school operates on low power distance culture. |
| | High Power Distance | 4.05 | 0.56 | |
| Uncertainty Avoidance | Aggressivist | 3.99 | 0.51 | The school operates on aggressivist culture. |
| | Fatalist | 3.96 | 0.37 | |
| Masculinity-Femininity | Masculine | 3.34 | 1.05 | The school operates on feminine culture. |
| | Feminine | 3.60 | 0.92 | |

The table in the previous page shows the culture where Masapang Elementary Operates. On a fast glimpse, it can be seen that the school operates on the culture of collectivism, low power distance, aggressivism, and feminine. All of these are concluded because these cultures gained a higher mean level over the other cultures, as perceived by the teachers. The standard deviation of less than one, or a little bit higher than one, shows the homogeneity of the answers of the respondents.

The school, operating on collectivism culture, means that they proceed as a group everytime there is a project or program to accomplish. There might be division of labor but the solidarity in doing a task still remains. Working hand-in-hand is a good habit that gives encouragement to others, especially those who are weak or works on a slower pace.

Masapang Elementary School has a low power distance. Teachers can go directly to the school head without anymore consenting with the department heads. The organization is flat. Communication is fast. There are few heads to obey. Leadership resides on few, or sole authority.

Aggresivism prevails also in Masapang Elementary School. Teachers and school head do not want to settle to what have been accustomed. They want to experiment on new methods or strategies, new projects and programs, new ways of getting into their target. This does not mean forgetting the old ones, but just experimenting on new ways that might be easy with the old ones.

Feminine culture also permeates. Care and welfare of the workforce is of higher importance than development. Female voices are more heard than male ones. This does not mean that male ideas are not heard. It just mean that female ideas most of the time prevails, not because of numbers, but probably because of having matured female members over younger male ones.

Status of the Conduct of School Learning Action Cells (SLACs)

| Indicators | Mean | SD | Interpretation |
|---|-------------|-------------|--------------------------|
| 1. The SLAC was conducted on a convenient time without the disruption of classes. | 4.46 | 0.71 | Very Highly Satisfactory |
| 2. The SLAC went well and everyone understands the topic discussed. | 4.32 | 0.43 | Very Highly Satisfactory |
| 3. The ideas presented in the SLAC are issues or topic that can help teachers grow in their relationship with other teachers. | 4.57 | 0.42 | Very Highly Satisfactory |
| 4. The speaker/researcher answered questions politely and clearly. | 4.72 | 0.67 | Very Highly Satisfactory |
| 5. The venue of the SLAC was comfortable. | 4.07 | 0.92 | Highly Satisfactory |
| 6. The SLAC became an avenue for clearing things with regards to the topic. | 4.60 | 0.32 | Very Highly Satisfactory |
| 7. The SLAC is academic in nature and provides information that is necessary for educative process. | 4.11 | 0.55 | Highly Satisfactory |
| 8. Other attendees of the SLAC are cooperative and willing to accept ideas from others. | 4.03 | 0.40 | Highly Satisfactory |
| 9. The speaker/researcher has a mastery of the topic and was able to deliver the information with confidence. | 4.67 | 0.81 | Very Highly Satisfactory |
| 10. The SLAC can be shared to other school because the topic is interesting. | 4.71 | 0.39 | Very Highly Satisfactory |
| Average | 4.43 | 0.56 | Very Highly Satisfactory |

Legend:

| | |
|-------------|--------------------------|
| 4.21 – 5.00 | Very Highly Satisfactory |
| 3.41 – 4.20 | Highly Satisfactory |
| 2.61 – 3.40 | Satisfactory |
| 1.81 – 2.60 | Fairly Satisfactory |
| 1.00 – 1.80 | Unsatisfactory |

The table above shows the teachers' rating on the conduct of SLACs that deals with the dimensions of school culture. It can be seen that indicators number 1, 2, 3, 4, 6, 9 and 10 gained a rating of very highly satisfactory. These indicators are the ones that pertain to the mastery and confidence of the speakers (the researchers themselves), confidence, the good flow of discussion, and the level on how the teachers would like the SLACs to be shared also to other schools. On the other hand, indicators numbers 5, 7 and 8 gained a rating of highly satisfactory. These are items that pertain to the venue, the cooperation of participants, and the manner on how they perceive the topic of SLACs as helpful in the educative process.

Teacher's Work Value After the SLACs on School Culture

| Attributes | Mean | SD | Interpretation |
|--------------------------|-------------|-------------|------------------------|
| 1. Creativity | 4.43 | 0.14 | Very High Level |
| 2. Management | 4.14 | 0.39 | High Level |
| 3. Achievement | 4.47 | 0.00 | Very High Level |
| 4. Surroundings | 4.49 | 0.07 | Very High Level |
| 5. Supervisory relations | 4.67 | 0.03 | Very High Level |
| 6. Way of life | 4.41 | 0.16 | Very High Level |
| 7. Security | 4.31 | 0.14 | Very High Level |
| 8. Associates | 4.35 | 0.26 | Very High Level |
| 9. Aesthetics | 4.35 | 0.06 | Very High Level |
| 10. Prestige | 4.29 | 0.20 | Very High Level |
| 11. Independence | 4.25 | 0.33 | Very High Level |
| 12. Variety | 4.29 | 0.10 | Very High Level |
| 13. Economic return | 4.27 | 0.03 | Very High Level |
| 14. Altruism | 4.51 | 0.07 | Very High Level |
| 15. Intellectual | 4.53 | 0.06 | Very High Level |
| Average | 4.39 | 0.14 | Very High Level |

Legend:

| | |
|-------------|-----------------|
| 4.21 – 5.00 | Very High Level |
| 3.41 – 4.20 | High Level |
| 2.61 – 3.40 | Moderate Level |
| 1.81 – 2.60 | Low Level |
| 1.00 – 1.80 | Very Low Level |

The table shows the level of work values of the 20 teachers in Masapang Elementary School, with the 15 attributes of working having individual summary of rating. All attributes, except attribute number 2 which is management, gained a rating of very high level. The

teachers can be considered to have a mature level of work values because they are considered professional and they are guided with the code of ethics for professional teachers. The attribute management may have only a high level probably because they still have questions or issues with regards to management which cannot be dealt with in one sitting, especially when those issues have connection to higher level of management which the school system cannot solve.

T-test of Paired Samples for the Significant Effect of SLAC to Work Values

| Attributes | Mean Before SLACs | Mean After SLACs | T-comp | T-crit | P-value | Significance |
|------------------------------|-------------------|------------------|--------|--------|---------|--------------|
| 1. Creativity | 4.39 | 4.43 | 0.69 | 2.09 | 0.69 | |
| 2. Management | 3.86 | 4.14 | 2.42 | 2.09 | 0.02 | Significant |
| 3. Achievement | 4.41 | 4.47 | 0.47 | 2.09 | 0.83 | |
| 4. Surroundings | 4.37 | 4.49 | 2.20 | 2.09 | 0.04 | Significant |
| 5. Supervisory relations | 4.67 | 4.67 | 1.45 | 2.09 | 0.58 | |
| 6. Way of life | 4.37 | 4.41 | 0.69 | 2.09 | 0.69 | |
| 7. Security | 4.22 | 4.31 | 0.14 | 2.09 | 0.90 | |
| 8. Associates | 4.20 | 4.35 | 2.31 | 2.09 | 0.03 | Significant |
| 9. Aesthetics | 4.25 | 4.35 | 2.20 | 2.09 | 0.04 | Significant |
| 10. Prestige | 4.16 | 4.29 | 2.20 | 2.09 | 0.04 | Significant |
| 11. Independence | 4.08 | 4.25 | 2.31 | 2.09 | 0.03 | Significant |
| 12. Variety | 4.18 | 4.29 | 2.31 | 2.09 | 0.04 | Significant |
| 13. Economic return | 4.14 | 4.27 | 2.31 | 2.09 | 0.04 | Significant |
| 14. Altruism | 4.51 | 4.51 | 1.45 | 2.09 | 0.57 | |
| 15. Intellectual stimulation | 4.49 | 4.53 | 0.69 | 2.09 | 0.68 | |

alpha = 0.05

The table in the previous page shows the paired t-test result of level of work values before and after the conduct of series of SLAC on dimensions of school culture. It can be seen that 8 out of 15 attributes increased significantly, as shown by greater t-computed compared to t-tabular. These attributes that increased significantly are management, surroundings, associates, aesthetics, prestige, independence, variety and economic return. The significant increase is supported by P-values which are lower than the alpha level 0.05. This means that with 95% confidence, it can be said that the conduct of SLACs which gives awareness on the dimensions of school culture helped increased teachers' work values.

On the other hand, there are 7 attributes of work values that increased in level, but the increase is significant. These attributes are creativity, achievement, supervisory relations, way of life, security, altruism and intellectual stimulation.

The result in this study can be given light by what Smith (2012) declared in his writings, that teachers reflect on their behaviour and become conscious of the basic assumptions that underpin their interpretation of what they do. Because of the conduct of SLACs, they became aware that there are indeed different school culture, and that each culture has its own strengths and weakness. Therefore, teachers need not to look for their desired culture, because it is created over a long period of time and it depends on the totality of people contributing in a group or community or congregation.

Recommendation

Based on the result that came out of this study, the following recommendation is given to the target person or group of persons:

1. **School heads** should conduct regular assessment of school climate so as to adapt projects and programs that will suit the kind of community a school builds.
2. **Teachers** should always seek not just professional growth but also personal growth because work values are very important in having a good performance in a workplace.
3. **Community officials** should seek opportunities to support school activities, and not just wait for call assistance for specific projects. They need to be active in supporting school objectives for the benefit of the learners.
4. **Future researchers** can include other factors that can help increase work values of teachers, such as seminars, workshops and other related activities.

Reflection

The conduct of this study opened the eyes of the researchers about the school culture of Masapang Elementary School. Through this, school governance will somehow have means of direction. Relationship with subordinates will not anymore created skirmishes, or if not totally abolished as is normal in an organization, the struggles in association will be decreased.

Also, as this study revealed that work values increased through the dissemination of information on school culture, the researchers were delighted to the fact that work values can be increased if teachers will have a thorough knowledge that there is no perfect organization. Everyone can work well with if only they will learn to accept strengths and weaknesses of each other, for by ourselves, we sharpen one another. What is important is whole heart commitment and dedication, and not personal gains and self-satisfaction. Serving others, in fact, is the example given to us by our Master Teacher, our Lord Jesus Christ. He Himself understands our weaknesses, so we too should seek on how to serve others and aid them in becoming a better worker.

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Experiences of Batang Atikha Implementation: Supporting Children of OFWs in Mabini District

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Abstract

This action research aimed to develop a new scheme in intensifying the implementation of Batang Atikha School-Based Program in Mabini District. Teacher coordinators were having difficulties in meeting members and Atikha modules were not rolled up in the field. Using the descriptive type of research with the questionnaire as the main instrument in gathering data, the findings revealed that Batang Atikha Congress was the most participated activities by the members and time constraint in module roll out, overlapping of school activities and the lack of specific schedule for module roll out were the difficulties encountered. A new scheme in intensifying the implementation of Batang Atikha School-based program for children of OFWs along with the time on task of DepEd was developed based on the results. This research served as reference among batang atikha coordinators to provide them the new scheme on how atikha modules were integrated in learning areas such as ESP and AP.

Keywords: implementation, overlapping, intensifying, time on task, integrated

Introduction

Implementation of school programs is commonly sanctioned and supported by the higher educational authorities. Nevertheless, the support is not always enough, specifically in terms of financing the resources required in the implementation of the programs. Inadequate resources become a common problem to the success of the implementation of programs. This situation poses a great challenge and sometimes a great problem to the school heads and to the teachers.

School heads and teachers are obliged to prepare documentation of the process and report program outputs. More often than not, many of the reports are either fictitious or misleading so that the process has remained just a formal set up of the reporting of accomplishments. Again, this situation is common in the bureaucracy. Reports were checked only for compliance, but still unaccounted as to the reliability of the contents.

The cited situation is similar to the inadequate evaluation of the implementation of school programs, as both school heads and teachers are governed by the culture of compliance. Most of them believe that when a program is implemented, it is enough. Such practice like this manifests only stagnancy but not improvement. Hence, this situation demands a change.

In the school setting, the principal or the school head is the person designated with authority to implement the DepEd programs aimed at setting a balanced and harmonious organizational climate through administrative procedures essential in establishing and promoting the ideals of participative democracy within the ambit of the school and its community composed of school head/s, teachers, pupils, parents and other stakeholders.

The educational programs are first of all numerous, and varied in terms of purpose and coverage. Their development reflects the changing political and social contexts in the country from the past to the current generation. They provide frameworks and tasks, which are useful in institutionalizing or mainstreaming the formal education system. Further, they were formulated by different authorities who were themselves products of varied societal groups. Hence, it could not be denied that these programs and their implementation may not be totally effective as to attain set goals.

From the foregoing discussion about some variables related to program implementation, the researcher got interested in conducting a study on the implementation of Batang Atikha School-Based Program for Children of OFWs in Mabini District, Division of Batangas. This research aims at a continuous implementation of Batang Atikha Program by proposing an intensified scheme on the program implementation.

Review of Related Literature

In Bangladesh, Rahman, as cited by Merle (2015) noted that the implementation of educational programs is unsuccessful because of changing actual program issues. The primary education sector is supported by donor countries/agencies and they indirectly influence the program formulation process. The administrative inefficiency, mismanagement and accountability are problematic factors at program implementation. It needs to be mentioned that coordination, cooperation, and autonomy have impact on program implementation. This situation prompted the researcher to analyze the challenges of program formulation and implementation in primary education of Bangladesh. The institutional weakness, lack of political will as well as inadequate resources impacts on program implementation.

In support to the foregoing, the citation of Farah (in Merle, 2015) stressed some factors that weakened the implementation of programs related to adult literacy and non-formal education in Pakistan. These include frequent political changes, society's negative attitudes towards such program, procrastination of the release of funds, and questionable utilization of these funds because of poor monitoring of programs and lack of capacity. Timely release of funds from the government or donor to the program implementers is also a problem which has contributed to the failure of several programs.

Meanwhile, Gerston (in Fetalvo, 2015) holds that implementation is a "follow-through" component of the program making process and "represents the conscious conversion of program plans into reality". In this sense, program and implementation are inextricably an interwoven process by which program goals are associated with program outcome. Further, Li (in Lojo, 2015) cited that implementation studies are crucial to understanding the complicated program process. Implementation studies, however, had not received much attention in program analyses until *New Towns in Town* was published by Martha Derthick and *Implementation* was published by Jeffrey L. Pressman and Aaron Wildavsky.

The Program formulation and implementation process are the vital stages in program issues. In the developing countries these stages face a lot of problems. Different factors of formulation and implementation of education program in Bangladesh are considered the conceptual framework given by Grindle and Thomas They also have presented their ideas in the context of socio-economic and political conditions of developing countries. Program implementation will be successful when institutional strength and political will are working actively. Resources like political, financial, managerial, technical are needed to mobilize in order to sustain a program initiative (Rahman, in Lojo 2015).

Titumir (in Rodriguez, 2015) stressed the significant role of effective management and administration of resources in strengthening the implementation of programs. Technical resources are technology, equipment and infrastructural development and it helps to make sure program effectiveness at primary education. The government and donor agency/country are working together on infrastructural development through different projects/programs. The administrative resources are skill manpower, training and efficiency in administration and there are some lacking in administrative

resources also. This lack of resources and proper practice of resources make problem in program implementation at primary education in Bangladesh.

In implementing school programs from the school head through the teachers going to the pupils, Hughes (in Fetalvo, 2015) stressed that an effective information dissemination campaign is one in which pupils and teachers interact in ways that allow pupils to have an opportunity to maximize how much they learn and understand. There are a variety of ways in which pupils and teachers interact in a learning environment. Some interactions result in pupil learning, however, others have very little effect on pupil learning. Classroom discussions, teacher and pupil initiated questions, cooperative group work, peer tutoring and a host of other feedback systems such as assignments, examinations and electronic response systems such as the personal response system (PRS) and the personal data assistant (PDA) are instructional strategies that provide a measure of two-way communication in which information about what is taught and what is learned is exchanged between two people. On the other hand, there are instructional strategies in which pupils sit passively in classrooms where there is one-way communication – from teacher to pupils.

Meanwhile, supervision and monitoring of program implementation provide access to worthwhile and challenging learning in a way which takes into account the needs and aspirations of a wide range of pupils. While respecting the influence of the individual teacher on pupil learning, the fundamental question identified in enabling teacher learning is that of how leaders work with their staff (Victorian Curriculum and Assessment Authority, in Merle, 2015).

Research Questions

The researcher aims at developing a scheme in intensifying the implementation of Batang Atikha Program in supporting the children of OFW's in Mabini District.

Specifically, the researcher would like to answer the following research questions:

1. What is the frequency of Batang Atikha participants?
2. What are the practices utilized in implementing Batang Atikha?
3. What are the difficulties encountered in implementing the program?
4. What is the proposed scheme in intensifying the implementation of the program?

Scope and Limitations

This research aims to determine the frequency of Batang Atikha Participants in Mabini, the practices involved and difficulties encountered in the implementation of Batang Atikha School-Based Program for Children of OFW's in Mabini, Batangas and proposed a scheme to intensify the implementation of the program. The respondents of the study include 17 public schools in Mabini. The time frame of the study covered the school year 2017-2018. All other constraints that were encountered in the process of conducting this research are regarded as problems or limitations.

Methodology

Research Design

This action research is focused on the proposed scheme in intensifying Batang Atikha Program. The subjects of the study were 17 Public Elementary Schools in Mabini District that implemented the Batang Atikha Program. To attain the cited purpose, the researcher will use the qualitative method of research.

Data gathering method

The researcher used descriptive questionnaire based on the variables being studied. The ranking and weighted mean were used to quantify the frequency of Batang Atikha participants and as well as the practices utilized and the difficulties encountered in implementing the program. The data gathered from the respondents were given weights ranging from the scale of 1-4 with one as the lowest up to four as the highest value. The scale used were as follows:

| Option | Scale Range | Verbal Interpretation |
|--------|-------------|-------------------------------|
| 4 | 3.5 – 4.0 | Highly Evident / Always |
| 3 | 2.5 – 3.49 | Moderately Evident/ Sometimes |
| 2 | 1.5 – 2.49 | Evident / Seldom |
| 1 | 1.0 – 1.49 | Not Evident / Never |

Data analysis plan

For clarity and understanding of the gathered data, the researcher tabulated, tallied and interpreted the data. The weighted mean was used as statistical tool. The gathered data were collected and tallied using the frequency and weighted mean.

Results and Discussion

Table 1
Frequency of Batang Atikha Participants

| School | Batang Atikha Members | Rank |
|------------------------------|-----------------------|------|
| Anilao Elementary School | 0 | 11.5 |
| Bagalangit Elementary School | 0 | 11.5 |
| Gasang Elementary School | 32 | 3 |
| Laurel Elementary School | 0 | 11.5 |
| Mabini Central School | 35 | 2 |
| Mainaga-San Francisco ES | 30 | 4 |
| Mainit Elementary School | 0 | 11.5 |
| Malimatoc Elementary School | 0 | 11.5 |
| Nag-iba Elementary School | 0 | 11.5 |
| P. Anahao Elementary School | 0 | 11.5 |
| Panay Elementary School | 0 | 11.5 |
| San Jose Elementary School | 10 | 5 |
| San Juan-Sto. Niño ES | 0 | 11.5 |
| San Teodoro ES | 0 | 11.5 |
| Solo Elementary School | 0 | 11.5 |
| Sta. Mesa Elementary School | 0 | 11.5 |
| Talaga ES | 73 | 1 |
| Total | 180 | |

Table 1 showed the frequency of Batang Atikha participants in Mabini District. As gleaned in the table the top most numbered batang atikha participants were from Talaga Elementary School with 73 active members. It is noted that there were many OFW children in the school since Batang Atikha School-Based Program office was situated in Talaga Elementary School due to great numbers of OFW's in the area and with the scarcity of facilities in the municipal hall. Mabini Central School ranked second as reflected in the table. It was that so because Mabini CS was situated near Poblacion where many OFW's also were identified based on Municipal Records. Gasang ES ranked third wherein 32 members of Batang Atikha were active.

Mainaga-San Francisco Elementary School ranked 4 having 30 active members. The least number of members were from San Jose ES. This was due to the reason that the school was handling multigrade class and few numbers of OFW children were enrolled, others were in private school.

The records of Mabini Municipal Local Civil Registrar's Office and National Statistics Office showed that in 2012, the municipality has 8, 131 residential households and a total population of 42, 594. Thus, in 2009, OFWs comprised about 15% of the population of the town. As per record in the Community-Based Monitoring System (CBMS) conducted by the provincial government, Mabini was the top sending migrants municipality in the province of Batangas and accounted 3, 666 overseas migrants from Mabini.

Table 2
Practices Utilized in Implementing Batang Atikha Program

| Practices | Weighed Mean | Verbal Interpretation | Rank |
|--|---------------------|------------------------------|-------------|
| Attendance in module roll out / workshop | 3.52 | Sometimes | 2 |
| Participation in International coastal clean up | 3.03 | Sometimes | 7 |
| Participation in Municipal tree planting activity | 3.34 | Sometimes | 5 |
| Election of Batang Atikha Savers Club Officers | 3.44 | Sometimes | 3 |
| Participation in Batang Atikha Annual Congress | 3.54 | Always | 1 |
| Participation in Provincial Migrants Day celebration | 3.36 | Sometimes | 4 |
| Participation in Fun Run activities | 3.02 | Sometimes | 8 |
| Giving recognition to Modelong Batang Atikha | 2.98 | Sometimes | 9 |
| Giving recognition to outstanding savers of the year | 3.24 | Sometimes | 6 |
| Weighted Mean | 3.28 | Sometimes | |

Table 2 revealed the practices being utilized in implementing Batang Atikha Program. As reflected in the table the pupils perceived that they mostly like attending Batang Atikha Congress with a weighted mean of 3.54 and interpreted as always done. It is revealed that OFW children enjoyed attending the Congress which was held annually every month of

February. This is an indication that school head and the Atikha coordinator in different schools shall continue sending OFW children participants in the congress.

It was also perceived that attendance in module roll out / workshop ranked 2 with a weighted mean of 3.52 with a verbal interpretation of sometimes utilized. It is noted that children of OFW were interested in the different modules and workshop provided by Atikha. Election of Batang Atikha Savers Club Officers ranked 3 with a weighted mean of 3.44 and interpreted as sometimes. This revealed that pupils are born leaders for they wanted to be elected as club officers.

Pupils sometimes participated in Provincial Migrants Day celebration as well as in Municipal Tree Planting Activity and in giving recognition to outstanding savers of the year with weighted mean ranging from 3.36 – 3.24 as reflected in the table.

The least three practices that batang atikha members sometimes participated were the International Coastal Clean-Up with a weighted mean of 3.03 and Fun Run Activity with a weighted mean of 3.02 and ranked 7 and 8 respectively, this was because some of the parent/guardian do not permit their children to participate during weekend. They value much the time that they could spend to their children hence there were no classes. Being recognized as Modelong Batang Atikha has the least weighted mean of 2.98 which was interpreted as sometimes utilized, perhaps it was due to the density of criteria used to give certificate of recognition to Modelong Batang Atikha pupil.

Atikha, a non-government organization that provides economic and social services to overseas Filipinos (OFs) observed that children of migrants are often associated with problematic behaviors and unlikely values. Many children of migrants are observed to be more consumerist and less interested in school, have been hooked in vices and have experienced untimely pregnancy and early marriage.

According to Peñas (2012) on her study on (Views and Experiences of Children of First and Second Generation of Transnational Families in Mabini Batangas) most fathers of migrant families are having difficulties in performing dual-parent roles as “*Na-Tay*” (*nanay-tatay/mother-father*). Likewise, the left-behind extended families and paid caretakers are reluctant in making decisions in the household especially decisions with regards to children.

Atikha focused its work on addressing the social problems brought about by the separation of the Overseas Filipinos and their families. Atikha organizes communities of migrant families by providing psychosocial intervention to enable the community to respond to migration-related issues. It gives focus on the children of overseas Filipino workers (OFWs) and women. It conducted value formation, summer arts and crafts workshops for the children of overseas Filipinos in San Pablo City, Laguna. It also helped form self-help groups among the children of overseas Filipinos. Atikha believes that the social preparation of the families and the community is an important component for an effective reintegration program for migrant workers thus providing those mentioned above activities that will help OFW children to value and appreciate the sacrifices of their parents.

Table 3**Difficulties Encountered in Implementing Batang Atikha Program**

| Difficulties Encountered in Implementing Batang Atikha Program | Weighted Mean | Verbal Interpretation | Rank |
|---|----------------------|------------------------------|-------------|
| Limited time to attend the module workshop | 3.83 | Highly Evident | 1 |
| Lack of specific schedule of module roll out | 3.37 | Moderately Evident | 3 |
| Lack of interest to attend the module workshop | 2.42 | Evident | 8 |
| Overlapping activities in school | 3.46 | Moderately Evident | 2 |
| Availability of the workshop materials | 3.21 | Moderately Evident | 6 |
| Lack of support from guardian/parent | 3.32 | Moderately Evident | 5 |
| Pupils are not permitted to attend workshop during weekends | 3.33 | Moderately Evident | 4 |
| Influence of peer | 2.43 | Evident | 7 |
| Weighted Mean | 3.18 | Moderately Evident | |

Table 3 showed the difficulties encountered in implementing batang atikha program by 180 participants from select schools in Mabini District. As gleaned from the table the participants perceived that limited time to attend the module / workshop ranked first among the eight items with 3.83 weighted mean and interpreted as highly evident based from their responses. This means that teacher coordinator should prepare time table of activities for module roll out to manage properly the time of the pupils so that they can be able to attend the workshop without any learning areas being compromised.

Overlapping activities in school ranked second with 3.46 weighted mean and interpreted as moderately evident. This is an indication that school head and coordinator should prioritized programs and activities being implemented to manage time and resources for the good of school populace.

It was revealed that lack of specific schedule of module roll out / workshop hinder the successful implementation of the program with weighted mean of 3.37 and interpreted as moderately evident also. This means that school head together with the atikha coordinator in schools implementing the program should prepare schedule of module roll out without disruption of classes of pupils.

Availability of workshop materials, influence of peers and lack of interest of pupils in attending module roll out were the least three difficulties encountered as shown in the table and weighted as 3.21, 2.43 and 2.42 respectively. This finding indicates that workshop materials were not a problem because there is Maintenance and Other Operating Expenses (MOOE) for each school that will provide the materials to be used. Some pupils were not influenced by their peers, this is due to the fact that most of OFW children are interested in different activities of Atikha program.

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discussions, teacher and pupil initiated questions, cooperative group work, peer tutoring and a host of other feedback systems such as assignments, examinations and electronic response systems such as the personal response system (PRS) and the personal data assistant (PDA) are instructional strategies that provide a measure of two-way communication in which information about what is taught and what is learned is exchanged between two people. On the other hand, there are instructional strategies in which pupils sit passively in classrooms where there is one-way communication – from teacher to pupils.

Intensified Scheme for Batang Atikha School-Based Program

Rationale

Challenges and difficulties were common ingredients in program implementation and since Batang Atikha Program had been implemented in schools in Mabini District, limited time allotment in module roll out, overlapping of activities in school and lack of specific schedule of module roll out were the top three difficulties experienced in program implementation. This is due to the fact that all schools are mandated with DepEd Order No. 9, s. 2005- Instituting Measures to Increase Engaged Time –on-Task and Ensuring Compliance Therewith wherein one of the immediate tasks that need to be undertaken is to increase engaged time -on-task to meet the required number of school days in every school year and the time allotment for the different subjects in every school day by lessening activities that take teachers and/or students away from the classroom, maximizing the use of the time allotment for every subject, and reducing the non-teaching duties of teachers.

As an institution, all schools in Mabini District strictly followed the prescribed no. of school days and spent them in instructionally relevant activities pursuant to engaging students in learning the lessons of the K to 12 curriculum. However, Atikha teacher coordinators find it hard to adjust schedule for the activities of the program for children of OFW's. The gathered information will be the guiding tool in the preparation of the new scheme that will intensify the implementation of Batang Atikha Program among the 180 Batang Atikha Savers Club members in Mabini District.

Situational Analysis:

From the facts stated above the researcher came up in the realization that in order to intensify the implementation of Batang Atikha Program in 17 public schools in Mabini District a new scheme shall be made in accordance with the policy of time-on-task of DepEd.

Objectives:

- The OFW children should be able to realize the value of money that their parents are sending them
- They should be able to be aware on how the Department of Education and other non-government organization like Atikha Inc. support the program for children of OFW's
- To bring out reforms or changes on Batang Atikha Program and implement fully the scheme in intensifying the implementation of the program.

Involvement of OFW children in different activities as part of the batang atikha program showcased their talents in different areas like singing, dancing and acting where their time were diverted to these activities instead of engaging in different luxurious lifestyle.

Each member of batang atikha savers club had realized the value of money that their parents are sending them.

Attendance in module roll out gave informations to children about the life and work conditions of their parents abroad, the sacrifices and problems that their parents have encountered. Through their participation in workshop, they were able to realize the positive and negative effects brought by their separation to their parents and how they were going to combat these changes despite of the absence of the parents.

Workshops also fostered good communications and relations of children to their parents and how to resolve issues on communication through different activities that touched their heart. Most importantly, the modules gave clear understanding on the importance of goal setting and education to children together with the value of instilling saving consciousness and disavowing consumerism among children of OFW's.

Batang Atikha Savers Club (BASC) was a recognized club in the school due to the memorandum of agreement between Atikha and DepEd Schools Division Office through the leadership of the Schools Division Superintendent Dr. Carlito D. Rocafort and Executive Director of Atikha Initiative Inc. Mrs. Estrella Mai Anonuevo-Dizon. This was to support the program implementation for OFW children for them to be a productive members of the school populace, community and society as well.

In order to intensify the implementation of Batang Atikha Program, the following scheme is suggested by the researcher.

Introduction

The researcher used the gathered informations in the development of new scheme in intensifying the implementation of Batang Atikha Program in Mabini District. This scheme was designed to facilitate the module roll out and implement different activities of batang atikha without having conflict on the time-on-task of the DepEd.

The Scheme provided example schedule of how atikha modules were integrated in learning areas such as ESP and AP. The teaching hours are suggestions only and it is up to the teacher coordinator to use it in her/his most applicable time and upon OFW childrens' need. Suggested activities per module were not intended for one day it is up to the teacher coordinator also when to continue provided that all the activities will be done before moving on to the next module.

Module 1: Life and Work Conditions of Migrants

Suggested Time : 1 Hour

| Topic outline | Suggested activities | Subject to Integrate | Points to Note |
|--|--|----------------------|--|
| Objectives: Appreciate the work and realize the difficulties and sacrifices of their parents and relatives abroad; and | ACTIVITY 1 Magkudkod ay Di Biro (Scrubbing Toilet Bowl is Never Fun) ACTIVITY 2 24 na Oras sa Buhay ng OFW (24 Hours in a Life of an OFW) | Araling Panlipunan | OFWs have different situations depending on the country, profession and legal status abroad. Migrant women especially the |

| | | |
|---|--------------------------------------|---|
| Express their thoughts and feelings about their parents | ACTIVITY 3 LETTER WRITING | domestic helpers, entertainers and undocumented are vulnerable to discrimination, exploitation and abuse It is important to impart the realities of working abroad to the relatives in the Philippines for them to be able to manage their expectations. |
|---|--------------------------------------|---|

Module 2: Positive and Negative Effects of Migration
Suggested Time : 1 Hour

| Topic outline | Suggested activities | Subject to Integrate | Points to Note |
|---|--|----------------------|---|
| <p>Objectives: Appreciate the positive contribution of migration to their families, communities and country</p> <p>Understand the negative effects of migration on them and their families; and</p> <p>Cite the things that they can do to make their families strong despite the absence of their parents</p> | <p style="text-align: center;">ACTIVITY 1 Kailan Ka Babalik Inay? (When Are You Coming Back, Mom?)</p> <p style="text-align: center;">ACTIVITY 2 TIMBANGIN KUNG ANO ANG KULANG (What is missing? What is important?)</p> <p style="text-align: center;">ACTIVITY 3 TAYO AY MAGKAKAUGNAY (We are All Connected!)</p> | Araling Panlipunan | <p>Migration has both positive and negative effects and the children should have a balanced and realistic perception of migration.</p> <p>The action of every member of the family whether abroad or in the Philippines has an effect on the family.</p> <p>If the problems are not addressed it can cause family disintegration.</p> <p>We have the power and capacity to cope with the problems brought by migration.</p> |

Module 3: Bridging the Gap, Fostering Good Communications and Relations

Suggested Time : 1 Hour

| Topic outline | Suggested activities | Subject to Integrate | Points to Note |
|--|---|----------------------------------|---|
| <p>Objectives:</p> <p>Assess communication and relationships among members of their families;</p> <p>Identify the barriers that affect good communication and relationships in their families; and</p> <p>Discuss things that they can do towards fostering harmonious relations, and open communications despite the physical absence of their parents</p> | <p>ACTIVITY 1 ANG KONSTELASYON NG AKING PAMILYA (My Family Constellation)</p> <p>ACTIVITY 2 COMMUNICATION AND RELATIONS</p> <p>ACTIVITY 3 MAGIC MIRROR</p> | <p>Edukasyon sa Pagpapakatao</p> | <p>Extra effort should be exerted to monitor the quality of communication and to minimize communication gap.</p> <p>Frequently communicating with relatives abroad is desirable but attention should be given to the quality of communication.</p> <p>Emotions and problems should be shared and open communication should be encouraged.</p> <p>Inbox vs Special Box</p> <p>Writing letters should be encouraged to have the opportunity to share emotions and personal experiences.</p> |

Module 4: Importance of Education and Goal Setting

Suggested Time : 1 Hour

| Topic outline | Suggested activities | Subject to Integrate | Points to Note |
|---|---|----------------------------------|---|
| <p>Objectives:</p> <p>Understand themselves, appreciate their experiences and express their thoughts and feelings about their own self-discovery</p> | <p>ACTIVITY 1 Taong-tao Ako (Self-Discovery)</p> | <p>Edukasyon sa Pagpapakatao</p> | <p>Childrens’ desire to work abroad is oftentimes influenced by their parents and their community. It should be emphasized that education is important whether one is going to work abroad or in the Philippines.</p> |

| | | | |
|---|--|--|---|
| <p>Set goals and aspirations for themselves and for their families and identify the barriers to the realization of these dreams</p> <p>Appreciate the value of education toward the attainment of their goals</p> | <p>ACTIVITY 2 HAGDAN-HAGDANG PANGARAP (Staircase of Dreams)</p> <p>ACTIVITY 3 ROAD MAP</p> | | <p>A good education ensures that children will be working abroad out of their choice and not out of necessity.</p> <p>Children should have the capacity to set their goals with their parents including their hopes and dreams for the future</p> |
|---|--|--|---|

Module 5: Gender Sensitivity and Feminization of Migration
Suggested Time : 1 and ½ Hour

| Topic outline | Suggested activities | Subject to Integrate | Points to Note |
|---|---|----------------------------------|---|
| <p>Objectives:</p> <p>Differentiate sex and gender, sex roles and gender roles;</p> <p>Understand female and male stereotypes</p> <p>Compare their own with other people's beliefs about the roles and abilities of both sexes; and</p> <p>Understand the concept of gender sensitivity in relation to the feminization of migration</p> | <p>ACTIVITY 1 SEX AND GENDER (HUMAN ANATOMY GAME)</p> <p>ACTIVITY 2 GUESS WHO</p> <p>ACTIVITY 3 GENDER ROLE STEREOTYPING</p> <p>ACTIVITY 4 OUT OF THE BOX</p> | <p>Edukasyon sa Pagpapakatao</p> | <p>Sex is biologically determined while gender is socially and culturally constructed and transmitted during the process of socialization.</p> <p>Sex-role stereotyping lead individuals to conform to the stereotypes. It may also have significant effects on an individual's self-image, which comprises his self-esteem, self confidence and lost of control.</p> <p>The greatest social agents are parents, teachers and peers and the most influential forces in the transmittal of sex-role stereotypes are family, schools, church, mass media and community.</p> |

Module 6: Instilling Savings Consciousness, Disavowing Consumerism Suggested Time : 1 Hour

| Topic outline | Suggested activities | Subject to Integrate | Points to Note |
|---|---|----------------------------------|--|
| <p>Objectives:</p> <p>Understand the value of saving and wise use of money as one of their modest contributions to the early and eventual return of their parents from abroad; and</p> <p>Disavow the values of consumerism and reject colonial mentality.</p> | <p>ACTIVITY 1 BILMOKO (I want those things! Buy those for me!)</p> <p>ACTIVITY 2 Php 1000 Peso Bill</p> <p>ACTIVITY 3 ROLE PLAYING</p> | <p>Edukasyon sa Pagpapakatao</p> | <p>Children have the tendency to splurge, become conscious of branded/imported goods and have preference for expensive gadgets, food, recreation when their parents are working abroad.</p> <p>Children should be made aware that these drains family resources.</p> <p>Financial and material things should not replace emotional bond between parents and children</p> |

Module 7: Orientation on Batang Atikha Savers Club Suggested Time : 30 Minutes

| Topic outline | Suggested activities | Subject to Integrate | Points to Note |
|--|---|----------------------------------|--|
| <p>Objectives:</p> <p>Understand the formula on how to save money and</p> <p>Understand the procedures on how to be a member of Batang Atikha Savers Club</p> | <p>ACTIVITY 1 Kwenta Mo, Savings Mo!</p> <p>ACTIVITY 2 HOW TO JOIN?</p> | <p>Edukasyon sa Pagpapakatao</p> | <p>Baon- Ipon= Gastos is the effective formula of saving money among students</p> <p>Save at least 10% of Allowance</p> <p>Fill-out BASC yellow form</p> <p>Present 2 Valid IDs</p> <p>Photocopy of birth certificate Photocopy of School ID or certificate of enrollment</p> |

| | | | |
|--|--|--|---|
| | | | Provide 2 copies of 1x1 picture Initial deposit Php 100 Fill-out BK signature card |
|--|--|--|---|

Conclusions

Based on the research study conducted the following conclusions were made:

1. Full engagement of migrant children and their guardians is not with great extent.
2. Overlapping of school activities.
3. There is a need to provide a scheme in order to address the problems in module roll out without compromising the time on task of DepEd.

Recommendations

To intensify the implementation Batang Atikha School-Based Program the following recommendations were suggested:

- Engage parents/guardians of OFW children in different Atikha activities through online access to Atikha webpage www.atikha.org.
- Present a proposed action plan of Atikha Activities to DepEd officials in-charge.
- Provide capacity building training for parents and teachers.
- Craft a new scheme for module roll out and present it to DepEd Official in-charge for approval.

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TEACHING PERFORMANCE AND ACADEMIC ACHIEVEMENTS OF GRADE 6 PUPILS IN BAUAN WEST DISTRICT : BASIS FOR A FACULTY DEVELOPMENT PROGRAM

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Abstract

This study entitled “Teaching Performance And Academic Achievements Of Grade 6 Pupils In Bauan West District: Basis For A Faculty Development Program” aimed to determine the relationship between the teachers’ teaching performance and the pupils academic achievement. The findings revealed that the level of teachers' teaching performance as assessed by the school heads and teachers' themselves in terms of the following standards, Content Knowledge and Pedagogy; Learning Environment; Diversity of Learners; Curriculum and Planning; Assessment and Reporting; Community Leaders; and Personal Growth and Development fell under the very satisfactory level; however, results showed that the responses of the school heads and teachers on content knowledge and pedagogy significantly differ from one another.

On the other hand, the academic performance of the pupils in English, Mathematics, Science and Filipino was within the 80-85 bracket of the mean grade distribution meaning they are in the approaching proficiency level. Based on the result, there is no significant relationship between teachers performance and academic performance of pupils.

A faculty development program was proposed to enhance the teachers’ teaching performance which include Project CD (Curriculum Development); Project SD (Staff Development); Project MSM (Mastery of the Subject Matter) and Project AT (Assessment Tools).

Introduction

Teaching being a highly noble profession and teachers as key players are always a boon to society. The teaching acts of a teacher are meant to instill confidence in the youth so that not only while as students but also throughout their lifetime they could acquire relevant knowledge whenever they need it. The teacher’s job is therefore to show what to study, to challenge the students by setting high standards and to criticize in order to spur to further achievement, to help surmount blind spots and to evaluate each student’s progress in terms of valid objectives. Therefore, teachers have to adopt several strategies in their teaching in order to be effective in their jobs.

Learners come from different backgrounds and have varied experiences and abilities. Good teaching is not only dependent on teaching strategies or their effectiveness but it also depends on individual needs and adequacy of the content. The selection of an appropriate teaching approach is one of the most important processes to have teaching succeed and learners to achieve. Learners react differently to different teaching methods, and that the selection of the proper method is critical to the learning style of those being served by the instruction. There is an assumption that learners learn with different styles, at different speeds, different levels of prior knowledge and different environments when the subject

matter is given by way of a variety of teaching strategies and how teachers perform the task of teaching.

The ability to communicate effectively with the learners in a way so as to understand the purpose and objectives of the lesson is one of the main tasks of teachers. Using the correct teaching method helps any student learn or master knowledge and skills.

These issues have prompted the researcher to determine the relationship of the teaching performance of Grade 6 teachers in Bauan West District, and the academic performance of the pupils for SY 2018-2019 and propose a faculty development program designed to improve the performance of the teachers in teaching.

Review of Related Literature

Teachers' Performance. Learners come from different backgrounds and have varied experiences and abilities. Good teaching is not only dependent on teaching strategies or their effectiveness but it also depends on individual needs and adequacy of the content. The selection of an appropriate teaching approach is one of the most important processes to have teaching succeed and learners to achieve. Learners react differently to different teaching methods, and that the selection of the proper method is critical to the learning style of those being served by the instruction. There is an assumption that learners learn with different styles, at different speeds, different levels of prior knowledge and different environments when the subject matter is given by way of a variety of teaching strategies and how teachers perform the task of teaching.

The primary purpose of teaching at any level of education is to bring a fundamental change in the learner. To facilitate the process of knowledge transmission, teachers should apply appropriate teaching methods that best suit specific objectives and level exit outcomes. In the traditional epoch, many teaching practitioners widely applied teacher-centered methods to impart knowledge to learners comparative to student-centered methods. Until today, questions about the effectiveness of teaching methods on student learning have consistently raised considerable interest in the thematic field of educational research. Moreover, research on teaching and learning constantly endeavour to examine the extent to which different teaching methods enhance growth in student learning (Tebabal & Kahssay, 2015).

Tanner (2013) stated that teachers at all levels understand the struggle to make learning meaningful. Students often resist the textbook approach to instruction because they see little, if any, relationship between the text and their lives. Good instructional projects challenge students to solve real-world problems and present their findings. A project-based approach to instruction presents students with problem-focused assignments that are meaningful, interesting and valuable. Planning is the key to this instructional method. Projects do not only reflect student interest but also meet one or more course standards. Unless they are linked to course standards, projects may be interesting and enjoyable but will have little or no effect on academic or technical achievement.

Another problem that deals with the proper classroom management is the student's performance in the routinely activities. In this kind of problem, teachers must establish and implement routine procedures. It should be done so that pupils will not be confused as they go on the process of learning. For instance, teachers must tell their students the proper behaviour as soon as they enter the room, with or without the teacher. Pupils should also know how to check attendance, home works, books, etc. proper placement of their things such as bags and books should also be guided accordingly. Pupils should know when to ask questions politely, to stand when they are called and to do seat works independently and quietly. Teachers must also tell the students to avoid unnecessary talking and noise. Pupils

this time lack interest in studying their lessons. Therefore, teachers must consider this as a problem to be solved. Teachers must take classroom recitations or activities meaningful, purposeful, relevant and profitable. The best way is to relate classroom discussions into real life situations. The teacher must be lively with much enthusiasm and encourage creative and critical thinking. The pupils must be free from self-expression and must possess confidence and creativity especially those who are in primary levels. Pupils learn better when they are motivated on their own and challenged to put farther their best effort. Thus, in managing a classroom, the children must be motivated and they ought to receive a positive reinforcement during the process of learning.

The study of Josiah et.al. (2017) investigated teachers' quality as determinant of students' academic performance in secondary schools in Edo South Senatorial District of Nigeria. The result was carried out using frequencies, percentages and Pearson Product Moment Correlation Coefficient. The results revealed that level of teacher quality in secondary schools in Edo South Senatorial District of Nigeria was high, there was average level of students' academic performance in secondary schools in Edo South Senatorial District of Nigeria, Teacher quality and academic qualification had no significant influence on students' academic performance. It was recommended among others that principals should ensure that the potentials of the teachers are well harnessed and utilized to reflect the true picture of their quality in the academic performance of students.

Moreover, in the study conducted by Akiri (2018) the study determined the influence of teachers' classroom effectiveness on students academic performance in public secondary schools in Delta State, Nigeria. It was descriptive in nature and involved 979 teachers, made up of 450 males and 519 females, drawn from 72 out of the total of 361 public secondary schools in the State by stratified random sampling technique. The results showed that effective teachers produced better performing students. However, the observed differences in students' performance were statistically not significant. This could be due to the influence of student and school environment related factors which were not included in this study. It was concluded that teachers' effect is not the only determinant on students' academic achievement.

Research Questions

1. What is the level of teachers' teaching performance as assessed by the school heads and teachers' themselves in terms of the following standards:
 - 1.1 Content Knowledge and Pedagogy;
 - 1.2 Learning Environment;
 - 1.3 Diversity of Learners;
 - 1.4 Curriculum and Planning;
 - 1.5 Assessment and Reporting;
 - 1.6 Community Leaders; and
 - 1.7 Personal Growth and Development?
2. Is there a significant difference between the assessment of the school heads and the teachers themselves on the later's teaching performance in terms of the following standards:
 - 1.1 Content Knowledge and Pedagogy;
 - 1.2 Learning Environment;
 - 1.3 Diversity of Learners;
 - 1.4 Curriculum and Planning;
 - 1.5 Assessment and Reporting;
 - 1.6 Community Leaders; and
 - 1.7 Personal Growth and Development?

3. What is the level of academic achievements of the Grade VI pupils along:
 - 2.1 English;
 - 2.2 Mathematics;
 - 2.3 Science; and
 - 2.4 Filipino?
4. Is there a significant relationship between teachers' teaching performance along the given standards and pupils' academic achievements?
5. Based on the results of the study, what faculty development program maybe proposed to improve teachers' teaching performance?

Scope and Limitations

The study was confined to determine the relationship of the teaching performance of Grade 6 teachers in Bauan West District, and the academic performance of the pupils.

The study was undertaken based on the assumptions that there is significant relationship between teachers' teaching performance along the given standards and pupils' academic achievements.

This study was conducted during the school year 2018-2019. The study was delimited to other teachers, school heads and pupils who were not tested using the questionnaire prepared by the researcher, thus they were not included in the study.

Methodology

Research Design

This research utilized descriptive method where the researcher collected data from the different samples of the population, which were then analysed. This design was chosen because the researcher was involved in determining the relationship of the teaching performance of Grade 6 teachers in Bauan West District, and the academic performance of the pupils for SY 2018-2019. According to Fraenkel (2010), descriptive research is the most common methodology because it summarizes the characteristics of individuals or groupings in the physical event of school.

One of the purposes of the descriptive method of research is to describe the nature of a situation, as it exists at the time of the study. The researcher used this kind of research method in order to obtain first hand data from the results of the assessment of the respondents which led to the formulation of rational and sound conclusions and recommendations for the study.

Data gathering method

This research utilized descriptive method where the researcher collected data from the different samples of the population, which were then analyzed. This design was chosen because the researcher was involved in determining the relationship of the teaching performance of Grade 6 teachers in Bauan West District, and the academic performance of the pupils for SY 2018-2019. According to Fraenkel (2010), descriptive research is the most common methodology because it summarizes the characteristics of individuals or groupings in the physical event of school.

One of the purposes of the descriptive method of research is to describe the nature of a situation, as it exists at the time of the study. The researcher used this kind of research method in order to obtain first hand data from the results of the assessment of the respondents which led to the formulation of rational and sound conclusions and recommendations for the study.

Scoring of Responses. The responses were tallied, scored and tabulated for statistical treatment. To quantify the responses of the respondents on the level teaching performance of the teachers the following descriptive designation with its corresponding verbal interpretation, weights and range was used.

| Weight | Range | Verbal Interpretation |
|---------------|--------------|------------------------------|
| 4 | 3.50-4.00 | Very Satisfactory |
| 3 | 2.50-3.49 | Satisfactory |
| 2 | 1.50-2.49 | Moderate Extent |
| 1 | 0.50-1.49 | Less Extent |

Data analysis plan

For clarity and understanding of the gathered data, the researcher tabulated, tallied and interpreted the data. The weighted meas was used as statistical tool. The gathered data were collected and tallied using the frequency and weighted mean.

Table 1.1
Teaching Performance in Terms of Content Knowledge and Pedagogy

| Indicators | School Heads | | | Teachers | | |
|--|---------------------|-----------|------|-----------------|-----------|------|
| | WM | VI | Rank | WM | VI | Rank |
| 1. Present lessons in logical manner to help students understand the lesson clearly. | 3.00 | S | 10 | 3.44 | S | 7 |
| 2. Utilize instructional aids in presenting the lesson. | 3.54 | VS | 4.5 | 3.92 | VS | 1 |
| 3. Provide follow up questions to further elaborate students' responses. | 3.38 | S | 7.5 | 3.76 | VS | 3 |
| 4. Give cues and links during classes for better understanding of the lesson. | 3.31 | S | 9 | 3.36 | S | 9 |
| 5. Use pedagogical approaches in presenting the lesson. | 3.62 | VS | 3 | 3.52 | VS | 5 |
| 6. Explain facts and theories from the written sources of activities. | 3.46 | S | 5 | 3.68 | VS | 4 |
| 7. Follow one or only two instructions in a sequence. | 3.77 | VS | 1 | 3.88 | VS | 2 |
| 8. Use motivational techniques to arouse students' interest. | 3.69 | VS | 2 | 3.40 | S | 8 |
| 9. Allow students to recognize important features and concepts while doing experiments and other activities. | 3.38 | S | 7.5 | 3.28 | S | 10 |
| 10. Help students to discover predictions in the different concepts encountered. | 3.54 | VS | 5.5 | 3.48 | S | 6 |
| Average Weighted | 3.76 | VS | | 3.57 | VS | |

1.1 Content Knowledge and Pedagogy. Table 1.1 presents the extent of the teachers teaching performance in terms of content knowledge and pedagogy.

The data in the table show that both the school heads and the teachers viewed that the teachers very satisfactorily among their pupils. This was revealed by the obtained over-all weighted mean of 3.76 and 3.57 as assessed by the school heads and the teachers themselves respectively.

The findings of the study affirmed with the study of Tanner which said that teachers must be competent in terms of selecting methods or strategies, which are appropriate to their field of specialization; otherwise, they cannot impart knowledge properly. In this manner, the teacher needs to be creative in preparing their lessons to maximize the learning outcome.

Table 1.2

Teaching Performance in Terms of Learning Environment

| Indicators | School Heads | | | Teachers | | |
|---|--------------|-----------|------|-------------|----------|------|
| | WM | VI | Rank | WM | VI | Rank |
| 1. Get everyone's attention before beginning the class. | 3.85 | VS | 2 | 3.40 | S | 6 |
| 2. Establish rules and procedures in the classroom for the learners to adhere. | 3.92 | VS | 1 | 3.44 | S | 5 |
| 3. Give praise to the entire class as frequently as possible. | 3.62 | VS | 5 | 3.48 | S | 3.5 |
| 4. Intervene as much as possible to prevent learners' misbehavior. | 3.38 | S | 8 | 3.32 | S | 8 |
| 5. Use facial expressions and gestures to convey that learners' misbehaviour are not overlooked. | 3.31 | S | 9 | 3.24 | S | 10 |
| 6. Address instruction and assignments to challenge academic achievement while continuing to assure individual learners' success. | 3.54 | VS | 6 | 3.52 | VS | 1 |
| 7. Consistent in the application of rules and procedures in the classroom. | 3.46 | S | 7 | 3.44 | S | 2 |
| 8. Specify the praiseworthy aspects of students' accomplishments. | 3.69 | VS | 4 | 3.48 | S | 3.5 |
| 9. Help learners to better appreciate their thinking, problem-solving and performance. | 3.23 | S | 10 | 3.36 | S | 7 |
| 10. Demonstrate mastery of the subject matter through the congruency of the objective and assessment of the lesson. | 3.77 | VS | 3 | 3.28 | S | 9 |
| Average Weighted Means | 3.58 | VS | | 3.40 | S | |

1.2 Learning Environment. Table 1.2 shows the extent of the teaching performance of the teachers in teaching among the pupils in terms of learning environment. The composite mean of 3.58 for the school heads and verbal interpretation of very satisfactory proved this claim while the composite mean of 3.40 was obtained by the teacher respondents.

As indicated in the table, the teachers believed that they need to address instruction and assignments to challenge academic achievement while continuing to assure individual learners' success. The average weighted mean obtained by school heads was 3.52, ranked as first among the ten indicators considered. This means that the teachers need to pay attention to follow up activities at home so that they can enhance learning and be able to find out their development. It may thus be inferred that the teachers gave the highest point for this indicator because they were aware of the importance of challenging the learners before to reach the maximum desire for learning.

On the other hand, the school heads placed the indicator stating that teachers should establish rules and procedures in the classroom for the learners to adhere which obtained the weighted mean of 3.92. this is maybe due to the fact that school heads observed that it is important to establish rules before anything takes place in the classroom to ensure that the best learning would also take place.

This appraisal affirms the findings of Barker which stated that different teaching styles of the teachers can impact student learning in many ways.

Table 1.3
Teaching Performance in Terms of Diversity of Learners

| Indicators | School Heads | | | Teachers | | |
|--|--------------|-----------|------|-------------|-----------|------|
| | WM | VI | Rank | WM | VI | Rank |
| 1.Adapt different strategies in teaching especially in the spiral progression techniques. | 3.38 | S | 5.5 | 3.44 | S | 8 |
| 2. Assist learners in developing intellectual resources to enable them to participate in the class. | 3.31 | S | 7 | 3.60 | VS | 4 |
| 3. Attribute learners' success to effort and ability, implying that similar successes can be expected in the future. | 3.23 | S | 8.5 | 3.52 | VS | 6 |
| 4. Explain learning principles as they alternately appear to the context of the teaching process. | 3.46 | S | 3.5 | 3.64 | VS | 3 |
| 5. Draw conclusions and make generalization based on the lesson taught considering the diversity of learners. | 3.15 | S | 10 | 3.56 | VS | 5 |
| 6.Promote higher order thinking and learning to learners on a consistent basis. | 3.23 | S | 8.5 | 3.48 | S | 7 |
| 7.Execute the lesson in a manner that is well understood by the learners. | 3.38 | S | 5.5 | 3.76 | VS | 1 |
| 8. Promote collaboration to learners. | 3.46 | S | 3.5 | 3.36 | S | 10 |
| 9. Allow the actual learning and first hand experiences of learners in the discussion of lessons. | 3.62 | VS | 1 | 3.72 | VS | 2 |
| 10. Concretize abstract principles and laws related to learning. | 3.54 | VS | 2 | 3.40 | S | 9 |
| Average Weighted Means | 3.38 | VS | | 3.55 | VS | |

1.3 Diversity of Learners. Table 1.3 presents the level of the teaching performance of the teachers in teaching in terms of diversity of learners fall under a very satisfactory performance.

The level of the teaching performance of the teachers in teaching in terms of diversity of learners fall under a very satisfactory performance. The principals rated the teachers to have performed the task very satisfactorily as substantiated by the over-all weighted mean of 3.38 for the school heads, while the teachers themselves perceived the same with an over-all weighted mean of 3.55.

This finding agrees with the statement of Dicdican who revealed that pupils' performance lies on the expertise of a teacher. Applied classroom setting, expertise connote the effectiveness of the teacher to provide varied learning activities to the students for interactive/cooperative learning and the initiative of the teacher to ask questions that develop critical thinking.

Table 1.4
Teaching Performance in Terms of Curriculum and Planning

| Indicators | School Heads | | | Teachers | | |
|---|--------------|-----------|------|-------------|-----------|------|
| | WM | VI | Rank | WM | VI | Rank |
| 1. Prepare developmentally sequenced teaching and learning processes to meet curriculum requirements. | 3.92 | VS | 1 | 3.72 | VS | 1 |
| 2. Plan, manage and implement developmentally sequenced teaching and learning processes to meet curriculum requirements and varied teaching contexts. | 3.85 | VS | 2 | 3.56 | VS | 5 |
| 3. Identify learning outcomes that are aligned with learning competencies. | 3.77 | VS | 4.5 | 3.68 | VS | 2 |
| 4. Master the content they are working on before moving to a new topic. | 3.54 | VS | 9 | 3.38 | S | 8.5 |
| 5. Coordinate with other learners to achieve accurate results during activity periods. | 3.77 | VS | 4.5 | 3.38 | S | 8.5 |
| 6. Assess themselves in the areas that need extra efforts like remedial or enhancement programs. | 3.62 | VS | 8 | 3.46 | S | 7 |
| 7. Demonstrate knowledge of the implementation of relevant and responsive learning programs. | 3.64 | VS | 7 | 3.52 | VS | 6 |
| 8. Appreciate different approaches integrated in the instructions across curricular areas. | 3.38 | S | 10 | 3.32 | S | 10 |
| 9. Evaluate themselves on the strengths and weaknesses that make them realize the importance of learning. | 3.77 | VS | 4.5 | 3.64 | VS | 3 |
| 10. Use set ups on particular instructional groupings like collaborative learning and brainstorming. | 3.77 | VS | 4.5 | 3.60 | VS | 4 |
| Average Weighted Means | 3.70 | VS | | 3.53 | VS | |

1.4 Curriculum and Planning. Table 1.4 shows the level of teachers' performance in teaching in terms of curriculum and planning as manifested by the teachers and as assessed by the teachers themselves and the school heads. The over-all average weighted mean of 3.70 for the school heads and 3.53 for the teachers proved that the teachers performed their task in curriculum and planning very satisfactorily.

Teachers performed their teaching performance in terms of the curriculum and planning very satisfactorily. It proves that they give much importance of the curriculum and that the learning of the pupils depends on the kind of curriculum being implemented.

This finding affirmed with the ideas of Baril that the teacher's task performance is influenced, enhanced and sustained by the performance of the teachers in preparation for the higher grades in K-12 Curriculum.

Also this affirmed with that of Bauyon stating that effective teaching performance calls teachers to have a profound understanding of the curriculum. What should be taught pertains to a curriculum where the standards are deeply understood and utilized by all teachers within the school is to be taught. Effective teachers teach the curriculum at a level of depth that allows learners to apply, synthesize, and analyze their learning.

Table 1.5

Teaching Performance in Terms of Assessment and Reporting

| Indicators | School Heads | | | Teachers | | |
|--|--------------|-----------|------|-------------|-----------|------|
| | WM | VI | Rank | WM | VI | Rank |
| 1. Design, select, organize and use diagnostic, formative and summative assessment strategies consistent with curriculum requirements. | 3.77 | VS | 9.5 | 3.84 | VS | 1 |
| 2. Monitor and evaluate learner progress and achievements using learner attainment data. | 3.77 | VS | 9.5 | 3.80 | VS | 2 |
| 3. Strengthen learners to boost their interest because facts are meaningfully presented and can be connected to daily life. | 3.85 | VS | 5 | 3.64 | VS | 6.5 |
| 4. Meet the "good performance" which means a performance that lies above their previous achievement level. | 3.69 | VS | 8 | 3.76 | VS | 3 |
| 5. Use strategies for providing timely, accurate and constructive feedback to improve learners' performance | 3.92 | VS | 1.5 | 3.60 | VS | 8.5 |
| 6. Communicate promptly and clearly the learners' needs, progress and achievement to key stakeholders including parents/guardians. | 3.85 | VS | 5 | 3.60 | VS | 8.5 |
| 7. Utilize assessment data to inform the modification of teaching and learning practices and programs | 3.85 | VS | 5 | 3.64 | VS | 6.5 |
| 8. Apply skills in the effective communication of learners' need, progress and achievement. | 3.85 | VS | 5 | 3.72 | VS | 4 |
| 9. Lead colleagues to explore, design and implement effective practices and programs using information derived from assessment data. | 3.92 | VS | 1.5 | 3.52 | VS | 10 |
| 10. Promote learning on the practical aspect of the content and application skills and apply it in their daily lives. | 3.85 | VS | 5 | 3.68 | VS | 5 |
| Average Weighted Means | 3.83 | VS | | 3.68 | VS | |

Table 1.5 presents the level of the teaching performance of the teachers in teaching in terms of assessment and reporting. The over-all weighted mean of 3.83 from the school heads and 3.68 from the teachers is great indication that the teachers performed their task very satisfactorily.

From the table, it could be seen that the teachers performed their task very satisfactorily as assessed by the school heads in leading colleagues to explore, design and implement effective practices and programs using information derived from assessment data as evidenced by the average weighted mean of 3.92. They believed that doing such would bring the learners to success.

As revealed by the respondents, other items which were all verbally interpreted very satisfactory by the teacher-respondents were meeting the “good performance” which means a performance that lies above their previous achievement level (3.76); promoting learning on the practical aspect of the content and application skills and apply it in their daily lives (3.68); utilizing assessment data to inform the modification of teaching and learning practices and programs and strengthening learners to boost their interest because facts are meaningfully presented and can be connected to daily life (3.64); using strategies for providing timely, accurate and constructive feedback to improve learners’ performance and communicating promptly and clearly the learners’ needs, progress and achievement to key stakeholders including parents/guardians(3.60) and leading colleagues to explore, design and implement effective practices and programs using information derived from assessment data.

The idea of Tebabal & Kahssay intensified this finding that stated research on teaching and learning constantly endeavor to examine the extent to which different teaching methods enhance growth in student learning.

Table 1.6
Teaching Performance in Terms of Community Leaders

| Indicators | School Heads | | | Teachers | | |
|--|--------------|-----------|------|-------------|-----------|------|
| | WM | VI | Rank | WM | VI | Rank |
| 1. Establish learning environments that are responsive to community contexts. | 3.85 | VS | 5 | 3.44 | S | 7.5 |
| 2. Engage parents and other stakeholders for wider school community in the educative process. | 3.85 | VS | 5 | 3.44 | S | 7.5 |
| 3. Demonstrate an understanding of knowledge of learning environments that are responsive to the learning contexts. | 3.77 | VS | 8 | 3.46 | S | 6 |
| 4. Build relationship with parents/guardians and the wider school community to facilitate involvement in the educative process. | 3.85 | VS | 5 | 3.54 | VS | 4 |
| 5. Maintain learning environment that are responsive to community contexts. | 3.69 | VS | 10 | 3.56 | VS | 3 |
| 6. Demonstrate knowledge and understanding of school policies and procedures to foster harmonious relationships with the wider school community. | 3.92 | VS | 2 | 3.60 | VS | 2 |
| 7. Exhibit commitment and support co-teachers and colleagues in the implementation of school policies and procedures. | 3.92 | VS | 2 | 3.64 | VS | 1 |
| 8. Evaluate existing school policies and procedures to make them more responsive to the needs of the learners. | 3.92 | VS | 2 | 3.40 | S | 9 |
| 9. Demonstrate leadership within and across school contexts in critically evaluating practice and setting clearly. | 3.77 | VS | 8 | 3.52 | VS | 5 |
| 10. Develop a personal improvement plan for community linkages. | 3.77 | VS | 8 | 3.38 | S | 10 |
| Average Weighted Means | 3.83 | VS | | 3.50 | VS | |

1.6 Community Leaders Table 1.6 presents the level of the teaching performance of the teachers in teaching in terms of community leaders. The over-all weighted mean of 3.83 from the school heads and 3.50 from the teachers is great indication that the teachers performed their task very satisfactorily.

It could be gleaned from the table that the teachers performed their task very satisfactorily as assessed by the school heads and the teachers themselves in exhibiting commitment and support to co-teachers and colleagues in the implementation of school policies and procedures as evidenced by the average weighted mean of 3.94 from the school heads and 3.64 from the teachers. The more committed the teachers the better result is achieved especially that it concerned the community which is an important aspect of the education process.

As revealed by the teacher-respondents, other items which were all verbally interpreted satisfactory were demonstrating an understanding of knowledge of learning environments that are responsive to the learning contexts (3.46); engaging parents and other stakeholders for wider school community in the educative process and establishing learning environments that are responsive to community contexts (3.44); evaluating existing school policies and procedures to make them more responsive to the needs of the learners (3.40); and developing a personal improvement plan for community linkages (3.38).

The finding of Akiri relates to the findings of this study in that his study showed that effective teachers produced better performing students. However, the observed differences in students' performance were statistically not significant. This could be due to the influence of student and school environment related factors in this study. It was concluded that teachers' effect is not the only determinant on students' academic achievement but also to their environment.

Table 1.7

Teaching Performance in Terms of Professional Growth and Development

| Indicators | School Heads | | | Teachers | | |
|---|--------------|-----------|------|-------------|-----------|------|
| | WM | VI | Rank | WM | VI | Rank |
| 1. Articulate a personal philosophy of teaching that is learner-centered. | 3.54 | VS | 9.5 | 3.60 | VS | 7 |
| 2. Demonstrate behaviours that uphold the dignity of teaching as a profession. | 3.92 | VS | 1 | 3.80 | VS | 1 |
| 3. Seek opportunities to establish professional links with colleagues. | 3.85 | VS | 3.5 | 3.72 | VS | 3 |
| 4. Demonstrate understanding of how professional reflection and learning can be used to improve practice. | 3.77 | VS | 6.5 | 3.76 | VS | 2 |
| 5. Apply a personal philosophy of teaching that is learner-centered. | 3.85 | VS | 3.5 | 3.48 | S | 9 |
| 6. Contribute actively to professional networks within and between schools to improve knowledge. | 3.54 | VS | 9.5 | 3.64 | VS | 4.5 |
| 7. Take a leadership role in supporting colleagues' engagement in identified areas of need. | 3.77 | VS | 6.5 | 3.36 | S | 10 |
| 8. Demonstrate motivation to realize professional development goals based on PPST | 3.69 | VS | 8 | 3.60 | VS | 7 |
| 9. Manifest a learner-centered teaching philosophy in various aspects of teaching. | 3.85 | VS | 3.5 | 3.60 | VS | 7 |
| 10. Act as role model and advocate for upholding the dignity of teaching. | 3.85 | VS | 3.5 | 3.64 | VS | 4.5 |
| Average Weighted Means | 3.76 | VS | | 3.62 | VS | |

1.7 Professional Growth and Development. Table 1.7 presents the level of the teaching performance of the teachers in teaching in terms of professional growth and development. The principals rated the teachers to have performed the task very satisfactorily as substantiated by the weighted mean of 3.76 while the teachers, themselves perceived the same with a weighted mean of 3.62.

First in rank was that teachers demonstrate behaviours that uphold the dignity of teaching as a profession which gained a weighted mean of 3.92 from the school heads and 3.80 from the teachers. The school heads believed that teachers are doing their best for the attainment of the targets.

As indicated in the table, both the teachers and the school heads believed that the teachers seek opportunities to establish professional links with colleagues. It may thus be inferred that the teachers and the school heads gave the highest point for this indicator because they are aware of the importance of professional links for the teacher to grow professionally and holistically.

Other items which were rated very satisfactory by both the respondents include: acting as role model and advocate for upholding the dignity of teaching (3.85 WM from the school heads and 3.64 WM from the teachers); manifest a learner-centered teaching philosophy in various aspects of teaching (3.85 WM from the school heads and 3.60 WM from the teachers); taking a leadership role in supporting colleagues' engagement in identified areas of need (3.77 WM from the school heads and 3.36 WM from the teachers).

2. Comparison of the Responses of the Respondents on the Teachers' Teaching Performance

Table 2
Test of Difference in the Assessment of the Two Groups of Respondents on Teachers' Teaching Performance

| Teaching Performance Standard | Respondents | Mean | p-value | Decision | Verbal Interpretation |
|---------------------------------|--------------|------|------------|-----------|-----------------------|
| Content Knowledge and | School Heads | 3.76 | 0.032 | Reject Ho | Significant |
| | Teachers | 3.57 | | | |
| Learning Environment | School Heads | 3.58 | 0.041 | Reject Ho | Significant |
| | Teachers | 3.40 | | | |
| Diversity of Learners | School Heads | 3.38 | 0.013 | Reject Ho | Significant |
| | Teachers | 3.55 | | | |
| Curriculum and Planning | School Heads | 3.70 | 0.015 | Reject Ho | Significant |
| | Teachers | 3.53 | | | |
| Assessment and Reporting | School Heads | 3.83 | 0.001 | Reject Ho | Significant |
| | Teachers | 3.68 | | | |
| Community Leaders | School Heads | 3.83 | 0.004 | Reject Ho | Significant |
| | Teachers | 3.50 | | | |
| Personal Growth and Development | School Heads | 3.76 | 0.025 | Reject Ho | Significant |
| | Teachers | 3.62 | | | |
| $\alpha = 0.05$ | | | $p < 0.05$ | | |

2. Teachers' Teaching Performance

Results showed that the responses of the school heads and teachers on content knowledge and pedagogy significantly differ from one another. This is revealed by the computed p-value of 0.032 which is less than 0.05 level of significance, thus rejecting the hypothesis.

Likewise, the data also revealed that in terms of learning environment, the p-value of 0.041 is less than the 0.05 level of significance. The p – value implies that there is a significant difference between the responses of the school heads and teachers. Thus the null hypothesis is rejected.

Conversely, results revealed that the responses of the school heads and teachers, on diversity of learners have a p – value of 0.013 which is less than the level of significance at 0.05. This means that the null hypothesis will be rejected, such that there exists a significant difference between the responses of the respondents.

Moreover, it was also revealed from the results that there exists significant difference on the responses of the school heads and teachers on curriculum and planning. This was shown from the computed p-value result of 0.015 which is less than the level of significance at 0.05, thus, the rejecting the null.

Similarly, results revealed that the responses of the school heads and teachers, on assessment and reporting have a p – value of 0.001 which is less than the level of significance at 0.05. This means that the null hypothesis will be rejected, such that there exists a significant difference between the responses of the respondents.

Correspondingly, results show that the responses of the school heads and teachers on community leaders differ from one another. This is revealed by the computed p-value of 0.004 which is less than the 0.05 level of significance, thus rejecting the hypothesis. Lastly, the table further uncovered that a significant difference exists between responses of the respondents on personal growth and as revealed by the p- value of 0.025 which is less than 0.05 level of significance. Thus the null hypothesis is rejected.

3. Level of Academic Achievement of the Grade VI Pupils

Table 3.1
Level of Achievement of Grade VI Pupils in English

| Level | Frequency | Percentage | Rank |
|--------------------------------------|-----------|------------|------|
| Outstanding (90-100) | 77 | 13.92 | 4 |
| Very Satisfactory (85-89) | 131 | 23.69 | 3 |
| Satisfactory (80-84) | 169 | 30.56 | 1 |
| Fairly Satisfactory (75-79) | 157 | 28.39 | 2 |
| Did Not Meet Expectations (below 75) | 19 | 3.44 | 4 |

N = 553

Mean Grade = 82.97

Table 3.1 revealed that the level of achievement in English of the Grade VI pupils in Bauan West District has obtained the Mean grade of 82.97. As the major purpose of this study to determine the relationship of the teaching performance of Grade 6 teachers in Bauan West District, and the academic performance of the pupils is a clear justification that the teachers of West district are doing their job well. There is enhanced teaching and learning process congruent to the goals set forth by the Department of Education.

Table 3.2
Level of Achievement of Grade VI Pupils in Math

| Level | Frequency | Percentage | Rank |
|--------------------------------------|-----------|------------|------|
| Outstanding (90-100) | 71 | 12.84 | 5 |
| Very Satisfactory (85-89) | 111 | 20.07 | 2 |
| Satisfactory (80-84) | 206 | 37.26 | 1 |
| Fairly Satisfactory (75-79) | 89 | 16.09 | 3 |
| Did Not Meet Expectations (below 75) | 76 | 13.74 | 4 |

N = 553

Mean Grade = 82.03

Table 3.2 revealed that the level of achievement in Mathematics of the Grade VI pupils in Bauan West District has obtained the Mean grade of 82.03. This is an implication that most of the pupils understood Mathematics as it was taught to them by their teachers. As defined, Mathematics is the science that deals with the logic of shape, quantity and arrangement. Math is all around us, in everything we do. It is the building block for everything in our daily lives, including mobile devices, architecture (ancient and modern), art, money, engineering, and even sports. It means that the pupils have already a good foundation with regards to Mathematics.

Table 3.3
Level of Achievement of Grade VI Pupils in Science

| Level | Frequency | Percentage | Rank |
|--------------------------------------|-----------|------------|------|
| Outstanding (90-100) | 77 | 13.92 | 4 |
| Very Satisfactory (85-89) | 115 | 20.80 | 3 |
| Satisfactory (80-84) | 206 | 37.25 | 1 |
| Fairly Satisfactory (75-79) | 117 | 21.16 | 2 |
| Did Not Meet Expectations (below 75) | 38 | 6.87 | 5 |

N = 553

Mean Grade = 82.83

Table 3.3 showed the level of achievement of Grade VI pupils in Science. The mean grade of 82.83 is a revelation that the teaching performance of the teachers is very satisfactory. They have exemplified the true meaning of teaching and learning process. The pupils learned from the different techniques or strategies used by them in order to impart the knowledge and skills needed by the pupils.

Table 3.4
Level of Achievement of Grade VI Pupils in Filipino

| Level | Frequency | Percentage | Rank |
|--------------------------------------|-----------|------------|------|
| Outstanding (90-100) | 76 | 13.74 | 3 |
| Very Satisfactory (85-89) | 234 | 42.31 | 1 |
| Satisfactory (80-84) | 153 | 27.67 | 2 |
| Fairly Satisfactory (75-79) | 55 | 9.95 | 4 |
| Did Not Meet Expectations (below 75) | 35 | 6.33 | 5 |

N = 553

Mean Grade = 84.14

The mean grade of 84.14 as the level of achievement of Grade VI pupils in Filipino is a strong proof that the teachers' teaching performance is effective to the pupils. They have proven that they are really doing their very best to teach the pupils so that they will become productive individuals. This has helped achieve a great impact in the lives of the pupils.

4. Relationship Between Teachers' Teaching Performance and Pupils' Academic Achievement

Table 4
Relationship Between Teachers' Teaching Performance and Pupils' Academic Achievement

| | R | p-value | Interpretation | Decision on H ₀ |
|---------------------------------|--------|---------|-----------------|----------------------------|
| Content and Pedagogy | 0.038 | 0.862 | Not Significant | Accept H ₀ |
| Learning environment | 0.002 | 0.992 | Not Significant | Accept H ₀ |
| Diversity of Learners | 0.310 | 0.140 | Not Significant | Accept H ₀ |
| Curriculum and Planning | 0.098 | 0.649 | Not Significant | Accept H ₀ |
| Assessment and Reporting | 0.037 | 0.865 | Not Significant | Accept H ₀ |
| Community Leaders | 0.125 | 0.561 | Not Significant | Accept H ₀ |
| Personal Growth and Development | -0.103 | 0.631 | Not Significant | Accept H ₀ |
| Overall | 0.010 | 0.962 | Not Significant | Accept H ₀ |

$\alpha = 0.05$

There was no significant relationship between the teaching performance of the teachers and the pupils' achievement as assessed by the two groups of respondents because the computed correlation was 0.962 having a high positive relationship and exceeding the critical t-value of 0.010 at the 0.05 level of significance using 9 degrees of freedom, hence, the null hypothesis was not rejected.

This is a clear manifestation that through these results the teachers' teaching performance can also be considered very satisfactory because pupils cannot perform very well if the teachers are not doing their job. The teachers' teaching performance is a big contributory factor that enhances the performance of the pupils as they go along the process of learning.

5. Proposed Faculty Development Program

Faculty Development Program to Enhance the Teaching Performance of Teachers in Bauan West District

General Objective: Enhance the teaching performance of teachers in Bauan West District

A Faculty Development Program aimed at enhancing teachers' performance is a must to further strengthened the educative process and at the same time mold young minds to become the best persons they could be in the future.

Teachers as one of the key elements in the process need to be well-prepared in combating all the obstacles that may come along the teaching and learning process. They have to justify that they really are the 21st century teachers who are innovative, creative, resourceful, and intelligent and the like.

This program included project that will address the needs of the teachers. It includes Project CD to update materials in line with the K to 1 curriculum; Project SD or Staff Development to provide professional growth for teachers; Project MSM or Mastery of Subject matter and Project AS to enhance competencies of teachers in the use of the different assessment tools. These are all geared towards teachers' competence.

Conclusions

In the light of the findings, the following conclusions were drawn:

1. The elementary teachers in Bauan West District teachers were able to perform their teaching performance in among elementary learners very satisfactorily
2. There were significant differences between the assessments of the principals and the teachers on the level of teaching performance of the teachers in teaching elementary learners at Bauan West District.
3. A faculty development program to enhance teachers' teaching performance was proposed.

Recommendations

Based on the conclusions drawn, the following recommendations were offered:

1. Inasmuch as the teachers perform their task in teaching very satisfactorily, they should be encouraged by the school heads to maintain and sustain the continuing professional development focusing on the latest trend and strategies in teaching. They should also be invigorated to attend seminar- workshops regarding the different approaches to be used for

the advancement of the different K to 12 learning competencies in order to improve the performance of the learners.

2. The school heads must conduct frequent classroom observation to assist the teachers in utilizing different pedagogical approaches and to give instructional advice in meeting the individuals' needs of the learners.

3. Qualitative studies about high performing teachers could be conducted in order to show the competencies in actual observation of the school heads.

4. The school heads and teachers should join hands in studying the proposed action plan if it suits to the improvement of teaching in the elementary level. Likewise, it should be carefully studied and improved by the teachers and school heads before its implementation.

To determine the validity of the results, a follow-up study should be conducted. Learners' responses and assessments should be included as additional respondent.

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Classroom Diversity and Academic Performance of Grade 6 Pupils in Selected Public Elementary Schools in Mabini District: Basis For A Proposed Classroom Management Plan

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Abstract

This study aimed to determine how the teachers manage diversity, specifically through effective management practices and selection of instructional strategies and classroom activities that will help minimize the negative effects of diversity.

This study employed the the descriptive method of research to attain its objective which is determining how the teachers manage diversity, specifically in the areas of effective management practices and selection of instructional strategies and classroom activities that help minimize negative effects of diversity. The main data gathering instrument used is the questionnaire, which was formulated in the form of checklist to make the respondents' filling up of the questionnaire items faster and more convenient. It has three parts, the first of which is on the extent of diversity in terms of pupils' varied interest, behavior, cultural traces, intellectual capability and social traits. The second part is on the management strategies teachers utilize in coping with diversity as to teaching strategies employed, motivation techniques applied, evaluation process used, enrichment activities and recognition/awards for performance achieved. The third part is on the teachers' practices in their selection of teaching strategies and classroom activities to cope with classroom diversity.

Keywords: classroom diversity, academic performance, classroom management

Introduction

Batangas is one of the more progressive places in the country and is inhabited by people from different areas in the country. It is this situation which added to the occurrence of school and classroom diversity.

School and classroom diversity may have negative effects on the teaching-learning situation and on the learners. This situation poses a challenge to the teachers as it may interfere with the establishment of a positive school and classroom climate which is considered a factor that facilitates transfer of learning. It is in this connection that the challenge has to be attended to in the best way possible through more effective and efficient school and classroom management practices that will turn diversity into an opportunity for developing greater learning and competence among the pupils despite variation in their physical, intellectual, social, behavioral and other capabilities.

The foregoing situation also necessitates the implementation of pupil-centered classroom and culturally responsive management and teaching where differences are set aside and every pupil is accepted as an important part of the whole group. Hence, it is important for the school heads to manage and supervise the schools and for the teachers to design, select and utilize the more suitable teaching strategies and classroom activities that will unite diverse learners towards a common educational goal.

Review of Related Literature

Diversity is a term that can have many different meanings depending on context. Promoting diversity is a goal shared by many, but actually achieving this goal in the day-to-day classroom is often hard to do. Much discussion about diversity focuses on the following forms of marginalization: race, class, gender, and sexual orientation — and rightfully so, given the importance of these forms of difference. In fact, students come to the university classroom with different backgrounds, sets of experiences, cultural contexts, and world views. Additionally, issues of diversity play a role in how students and teachers view the importance of the classroom and what should happen there. For example, assumptions about what a typical student should know, the resources they have and their prior knowledge are extremely important. (Excerpted from <http://ctl.yale.edu/teaching/ideas-teaching/diversity-classroom>, No Author).

Petty (2017) cited that equality and diversity, or multiculturalism, is the idea of promoting and accepting the differences between people. More specifically, equality is about ensuring individuals are treated fairly and equally, no matter their race, gender, age, disability, religion or sexual orientation. Diversity is about recognizing and respecting these differences to create an all-inclusive atmosphere. Promoting equality and diversity in education is essential for both teachers and students. The aim is to create a classroom environment where all students can thrive together and understand that individual characteristics make people unique and not ‘different’ in a negative way.

The same author also cited the Equality Act of 2010 to strengthen her claims that promoting equality and diversity in the classroom need not be a challenge and is something that all children should be familiar with from an early age. This means: setting clear rules in regards to how people should be treated, challenging any negative attitudes, treating all staff and students fairly and equally, creating an all-inclusive culture for staff and students, avoiding stereotypes in examples and resources, using resources with multicultural themes, actively promoting multiculturalism in lessons, planning lessons that reflect the diversity of the classroom, ensuring all students have equal access to opportunities and participation, making sure that learning materials do not discriminate against anyone and are adapted where necessary, e.g. large print or audio tape format, using a variety of teaching methods, using a variety of assessment methods and ensuring policies and procedures don’t discriminate against anyone.

Zulueta (in Lojo, 2015) alleged that the pupils learn faster from experiences brought about by natural occurrences in the environment. He forwarded the requisites of experiential learning as follow: pupils’ personal involvement in the learning tasks for their own discovery of knowledge or information; objectives of the activity must be clearly understood by the pupils; degree of flexibility in the pupils’ pursuit of the learning tasks; pupils’ direct involvement in the planning stage of the learning experiences; freedom to interact with one another; availability of tools and materials; pupils’ recording of their observations for analysis, interpretation and conclusions; and the inclusion of a wide variety of real-life situations.

Aguirre, et al. (in Endaya, 2015) stressed that coping with classroom diversity can be attained through implementation of varied school activities that could help develop the pupils’ development of varied skills and competencies.

To this end, Acero et al. (in Lojo, 2015) suggested the teachers’ use of varied teaching strategies to facilitate the teaching-learning situation. Application of these strategies varies from one situation and from one group of learners to another. They also cited that there is no best teaching strategy but each is best according to its applicability to the type of learners and to the learning situation or environment. Hence, teachers must be adept in the selection of the

most appropriate teaching strategy in accordance to the existing learning factors and variables.

Research Questions

This research aims to determine management practices teachers utilize in coping with school and classroom diversity, in selected public elementary schools in Mabini District, Division of Batangas, as basis for improved management practices and promotion of positive classroom environment.

Specifically, it sought answers to the following questions:

1. To what extent is the evidence of school and classroom diversity as observed by the teachers in terms of:
 - 1.1. Pupils' Interest;
 - 1.2. Behavior;
 - 1.3. Cultural traces;
 - 1.4. Intellectual capability; and
 - 1.5. Social traits?
2. To what extent do the teachers manage diversity as to:
 - 2.1. motivation techniques applied;
 - 2.2. enrichment activities; and
 - 2.3. recognition/awards for performance achieved?
3. To what extent are the teachers' practices in their selection of teaching strategies and classroom activities to cope with diversity?
 - 3.1. teaching strategies employed; and,
 - 3.2. evaluation process used?
4. Is there a significant relationship between evidence of diversity and management of diversity?
5. From the findings of the study, what plan of action may be designed and implemented to improve management practices and promote positive classroom environment?

Scope and Limitations

The main focus of this study is on the teachers' management of diversity through application of classroom management practices and selection of teaching strategies and classroom activities to cope with diversity.

The respondents of the study include 180 teachers from selected public elementary schools in Mabini District, Division of Batangas, while the time frame is inclusive of the school year 2018-2019.

All other constraints that were encountered in the process of conducting this study were regarded as sources of weaknesses or limitations of the study that may weaken the reliability of the findings, specifically that of allowing the respondents free rein in answering the questionnaire. There may be situations of abrupt checking of options which may not be accurate but this situation is beyond the control of the researcher.

Methodology

Research Design

This study aims to determine how the teachers manage diversity, specifically through effective management practices and selection of instructional strategies and classroom activities that will help minimize the negative effects of diversity. To attain this objective, the

researcher decided to utilize the descriptive method of research since it is deemed most appropriate in assessing current practices and phenomena.

Data gathering method

The researcher utilized the descriptive method of research. Random sampling was used to determine the exact number of teacher-respondents to be used in this study. The sample size of the respondents was determined using the Slovin’s formula at 5% margin of error. Questionnaire was used as the main data gathering procedure. Weighted Mean, standard deviation and ranking were used in interpreting the data gathered from the respondents.

The following scale was used in interpreting the computed mean.

| Weight | Scale | Description/ Interpretation |
|---------------|---------------|------------------------------------|
| 5 | 4.205 – 5.0 | Highly Evident (HE) |
| 4 | 3.405 – 4.204 | Evident (E) |
| 3 | 2.605 – 3.404 | Moderate Evident (ME) |
| 2 | 1.805 – 2.604 | Less Evident (LE) |
| 1 | 1.804 below | Not Evident (NE) |

Data analysis plan

For clarity and understanding of the gathered data, the researcher tabulated, tallied and interpreted the data. The weighted meas was used as statistical tool. The gathered data were collected and tallied using the frequency and weighted mean.

Results and Discussion

Table 1.1
Evidence of Classroom Diversity as Observed by the Teachers in Terms of Pupils’ Interest

| Items | WM | Rank | D |
|------------------------------|-------------|-------------|-----------------------|
| 1. group activities | 4.74 | 2 | Highly Evident |
| 2. singing | 4.49 | 4 | Highly Evident |
| 3. dancing | 4.50 | 3 | Highly Evident |
| 4. participating in contests | 3.99 | 7 | Evident |
| 5. dramatization | 4.09 | 6 | Evident |
| 6. story telling | 4.13 | 5 | Evident |
| 7. games | 4.89 | 1 | Highly Evident |
| 8. poem reciting | 3.79 | 8 | Evident |
| Average/Weighted Mean | 4.33 | | Highly Evident |

Table 1 shows the respondents’ assessment of the evidence of classroom diversity based on their observation of pupils’ interests.

Four items obtained highly evident ratings, foremost of which was that of games, with the highest weighted mean of 4.89. This item obtained the highest weighted mean, probably because it is in this activity where the teachers observe most keenly the diversified interests

of different pupils. Meanwhile, the other items within this interpretative scale are group activities, dancing and singing, with respective weighted means of 4.74, 4.50 and 4.49 in consecutive ranks of two to four.

On the other hand, the remaining items obtained evident interpretation, the lowest weighted mean of which was on that of poem reciting at 3.79 in rank 8. This item could have emerged to such lowest position, definitely because the teachers rated the other items higher than this. It should be noted that rationalizing or making inferences on the probable reasons why variables were in respective positions by rank either highest, lowest or at the middle is a function of identifying and determining the priorities set by the respondents.

Gardner (2008) strengthened his theory of multiple intelligences on the conviction that the human mind, body and spirit manifest varied forms of interests, attitudes, capabilities, potentials and tendencies to think, speak out and perform acts according to his nature, though often times influenced by other factors in the environment.

Table 1. 2
Evidence of Classroom Diversity as Observed by the Teachers
in Terms of Pupils' Behavior Manifested

| Items | WM | Rank | D |
|------------------------------|-------------|------|--------------------|
| 1. obedient | 3.86 | 4 | Evident |
| 2. friendly | 4.34 | 1 | Highly Evident |
| 3. honest | 3.85 | 5 | Evident |
| 4. punctual | 4.05 | 2 | Evident |
| 5. talkative | 3.91 | 3 | Evident |
| 6. stubborn | 3.44 | 6 | Evident |
| 7. lazy | 3.19 | 7 | Moderately Evident |
| 8. arrogant | 2.79 | 8 | Moderately Evident |
| Average/Weighted Mean | 3.68 | | Evident |

Table 2 manifests the teachers' assessment of the evidence of classroom diversity in terms of pupils' manifested behavior.

The item with the highest weighted mean of 4.34 in rank one and interpreted as highly evident was that of being friendly. This item was prioritized by the respondents, probably because they have observed different types and forms of friendliness the pupils manifest in various classroom situations.

On the other hand, the items which obtained evident rating from the respondents' assessment include the following traits: punctual, talkative, obedient, honest and stubborn, with respective weighted means of 4.05, 3.91, 3.86, 3.85 and 3.44 in consecutive ranks of two to six. These findings indicate different traits, some positive while others, negative. What is emphasized here is the existence of diversified traits among pupils.

Finally, the other two manifested traits were laziness and arrogance, with respective weighted means of 3.19 and 2.79, both interpreted as moderately evident. These findings mean that there are also pupils who manifest these traits.

In totality, the composite mean of 3.68 indicates an "evident" rating, which means that the listed traits were manifested by the pupils to such a level. This implies that the

characteristic traits of pupils vary from one to another and from one situation to another situation.

Petty (2017) claimed that promoting equality and diversity in the classroom need not be a challenge and is something that all children should be familiar with from an early age.

Table 1.3
Evidence of Classroom Diversity as Observed by the Teachers
in Terms of Cultural Traces

| Items | WM | Rank | D |
|---|-------------|------|--------------------|
| 1. using respectful words in addressing someone | 4.03 | 3 | Evident |
| 2. valuing religion irrespective of differences in denomination | 4.13 | 1 | Evident |
| 3. speaking with respective regional accent | 4.06 | 2 | Evident |
| 4. disclosure of habits that reflect respective home environment | 3.84 | 4 | Evident |
| 5. mannerisms | 3.6 | 5 | Evident |
| 6. variations in attitude that reveal regional differences | 3.49 | 6 | Evident |
| 7. momentary lapses while reciting or communicating | 3.43 | 7 | Evident |
| 8. stubborn insistence of actions which they believe are righteous or otherwise | 3.21 | 8 | Moderately Evident |
| Average/Weighted Mean | 3.72 | | Evident |

Table 3 reflects the teachers' assessment of the evidence of classroom diversity in terms of cultural traces.

The highest weighted mean of 4.13 interpreted as evident was posted to the item pertaining to that of valuing religion irrespective of differences in denomination. This finding exemplifies the common nature of the Filipinos as religious people. Regardless of differences in groups whether Catholic or any other sector, the Filipinos are known for their strong belief in The Creator. In the schools, the pupils and even the teachers respect one another's religious belief.

Next in rank was that of speaking with respective regional accent, with a weighted mean of 4.06. This finding is most obvious as it is through manifested regional accent in speaking that one's cultural traces are identified. Further, it is a known fact that many people from the Visayas and Mindanao have long been residing in different parts of Luzon to seek better occupation. Hence, even in Mabini, Batangas, the current residents are not merely pure Mabinians.

In rank three, that of using respectful words in addressing someone obtained a weighted mean of 4.03 also interpreted as evident, followed by those of disclosure of habits that reflect respective home environment, mannerisms, variations in attitude that reveal regional differences, and momentary lapses while reciting or communicating, with respective weighted means of 3.84, 3.60, 3.49, and 3.43, all interpreted as evident. These findings indicate the variables that reveal diversity among pupils based on cultural traces.

Finally, the item with the lowest weighted mean of 3.21 interpreted as moderately evident was that of stubborn insistence of actions which they believe are righteous or otherwise. This finding could have emerged as the item with the lowest weighted mean

definitely because the respondents have observed its occurrence as the least frequent compared to the other listed items.

As a whole, the composite mean of 3.72 interpreted as evident is an indication of the level of diversity observed by the teachers among the pupils in terms of cultural traces. This finding supports the wide occurring phenomenon of regionalism among Filipinos as manifested by the pupils currently enrolled in the selected elementary schools, the research locale.

Culturally responsive teaching, according to Gay (2013), is the behavioral expressions of knowledge, beliefs, and values that recognize the importance of racial and cultural diversity in learning. It is contingent on . . . seeing cultural differences as assets; creating caring learning communities where culturally different individuals and heritages are valued; using cultural knowledge of ethnically diverse cultures, families, and communities to guide curriculum development, classroom climates, instructional strategies, and relationships with students; challenging racial and cultural stereotypes, prejudices, racism, and other forms of intolerance, injustice, and oppression; being change agents for social justice and academic equity; mediating power imbalances in classrooms based on race, culture, ethnicity, and class; and accepting cultural responsiveness as endemic to educational effectiveness in all areas of learning for students from all ethnic groups.

Table 1.4
Evidence of Classroom Diversity as Observed by the Teachers
in Terms of Pupils' Intellectual Capability

| Items | WM | Rank | D |
|--|-------------|------|--------------------|
| 1. speaking skills in terms of technical intonations | 3.54 | 4 | Evident |
| 2. communication skills in terms of dealing with one another | 3.78 | 1 | Evident |
| 3. writing skills | 3.56 | 3 | Evident |
| 4. comprehension skills | 3.33 | 5 | Moderately Evident |
| 5. mathematical skills | 3.31 | 6 | Moderately Evident |
| 6. reasoning skills | 3.30 | 7 | Moderately Evident |
| 7. artistic skills | 3.71 | 2 | Evident |
| 8. memorizing skills | 3.24 | 8 | Moderately Evident |
| Average/Weighted Mean | 3.47 | | Evident |

Table 4 shows the teachers' assessment of the evidence of classroom diversity in terms of pupils' intellectual capability.

Four items obtained higher weighted means tantamount to evident rating, while the other four were moderately evident. The highest weighted mean interpreted as evident was 3.78 on that of communication skills in terms of dealing with one another. This finding could have emerged as the most prioritized by the teachers, probably because there is a great variation on the level of communication skills among the pupils as observed from their performance in varied classroom activities where communication is an inherent part. It could be evident that there are pupils who manifest better communication skills than others do.

The other items which obtained similar evident interpretation are as follow: artistic skills, writing skills and speaking skills in terms of technical intonations, with respective

weighted means of 3.71, 3.56 and 3.54 in consecutive ranks of two to four. These findings indicate the other forms of competencies where the pupils manifest diversity in terms of level of accuracy and expertise. It appears that in these areas, diversity among pupils is manifested greater than in the remaining items which obtained moderately evident interpretation. These items include the following: comprehension skills, mathematical skills, reasoning skills and memorizing skills, with weighted means of 3.33, 3.31, 3.30 and 3.24, respectively.

The lowest weighted mean of 3.24 on memorizing skills could have emerged in such position among the listed items since it is a tendency among pupils to study their lessons basically by memorizing information. Hence, there could be only moderate variation in such a skill where all pupils are regularly performing. But in such higher level of competencies, there is no doubt that the bright are separated from the less bright.

Summing up, the composite mean of 3.47 interpreted as evident reflects the level of diversity observed by the teachers among the pupils in terms of intellectual capability. This finding indicates that the pupils manifest varying levels of intellectual capability.

Gardner (2008) strengthened his theory of multiple intelligences on the conviction that the human mind, body and spirit manifest varied forms of interests, attitudes, capabilities, potentials and tendencies to think, speak out and perform acts according to his nature, though often times influenced by other factors in the environment.

Table 1.5
Evidence of Classroom Diversity as Observed by the Teachers
in Terms of Pupils' Social Traits

| Items | WM | Rank | D |
|---|-------------|------|----------------|
| 1. friendliness/sociability | 4.49 | 1 | Highly Evident |
| 2. getting along with one another | 4.46 | 2 | Highly Evident |
| 3. use of trending language among peer groups | 4.24 | 3 | Highly Evident |
| 4. social habits | 4.20 | 4 | Evident |
| 5. habitual name calling | 3.9 | 5 | Evident |
| 6. joking one another | 3.78 | 6 | Evident |
| 7. attention seeking | 3.75 | 7 | Evident |
| 8. teasing one another | 3.64 | 8 | Evident |
| Average/Weighted Mean | 4.06 | | Evident |

Table 5 reflects the teachers' assessment of the evidence of classroom diversity in terms of pupils' social traits.

Three items obtained highly evident rating, foremost of which was that of friendliness/sociability, with the highest weighted mean of 4.49 in rank one. This finding connotes the item most prioritized by the teachers, most probably because they could have observed more often that the level of friendliness and sociability of the pupils differs from one another. Some may be very friendly and may have manifested such trait to a higher degree than others did.

The other two items in the same interpretative scale were those of getting along with one another and use of trending language among peer groups, with respective weighted means of 4.46 and 4.24 in ranks two and three. These findings indicate that the cited items also reveal diversity among the pupils

Meanwhile, five items obtained evident rating. These include social habits, habitual name calling, joking one another, attention seeking, and teasing one another, with weighted means ranging from 4.20 down to 3.64. These findings reveal an evidence of diversity among the pupils.

In totality, the composite mean of 4.06 interpreted as evident is an indication of the variables that help manifest diversity among the pupils in terms of social traits. This finding implies that pupils differ greatly from one another in terms of manifesting various social traits.

The study of Jennings and Greenberg (2009) proposed a model of the prosocial classroom that highlights the importance of teachers' social and emotional competence (SEC) and wellbeing in the development and maintenance of supportive teacher–student relationships, effective classroom management, and successful social and emotional learning program implementation. This model proposes that these factors contribute to creating a classroom climate that is more conducive to learning and that promotes positive developmental outcomes among pupils.

Table 2.1
Teachers' Management of Classroom Diversity in Terms of
Motivation Techniques Applied

| Items | WM | Rank | D |
|---|------|------|----------------|
| 1. Provides new experiences for pupils by means of field trips or going to communities | 3.79 | 8 | Evident |
| 2. Uses a variety of activities during each class period | 4.53 | 3 | Highly Evident |
| 3. Conducts stimulating lessons by relating the subject matter to the pupils' immediate concerns | 4.48 | 5 | Highly Evident |
| 4. Praises and acknowledges pupils for their effective classroom performance | 4.70 | 1 | Highly Evident |
| 5. Keeps the pupils' attention to the lesson by infusing sense of humor during discussion | 4.61 | 2 | Highly Evident |
| 6. Sustains classroom activities with playful environment to motivate pupils' maximum participation | 4.48 | 5 | Highly Evident |
| 7. Induces pupils to respond enthusiastically by giving them extra points or additional grade for correct answers | 4.48 | 5 | Highly Evident |
| 8. Brings to the classroom plenty of visual materials that attract pupils' attention towards the lesson | 4.44 | 7 | Highly Evident |
| Average/Weighted Mean | 4.44 | | Highly Evident |

Table 6 refers to the result of the respondents' assessment on the teachers' management of classroom diversity in terms of motivation techniques applied.

In seven of eight items, the obtained weighted means correspond to highly evident interpretation, the highest of which was 4.70 on that of praising and acknowledging pupils for their effective classroom performance. This finding points out the importance of reward as a form of reinforcement in contrast with punishment. Such a motivational technique stimulates the pupils' participation in classroom activities and helps improve their development of competencies. According to humanistic psychologists, viewing and treating pupils with unconditional positive regard means separating behavior from character, and starting fresh each day (Kelly, 2008).

In rank two, that of keeping the pupils' attention to the lesson by infusing sense of humor during discussion obtained a weighted mean of 4.61. This finding emancipates boredom and promotes a positive classroom climate by making more enjoyable the learning

process. Reid (2013) stressed that an effective teacher knows how to foster a positive classroom climate. In a positive classroom climate, teachers will find instructing more effective, while pupils will find education more enjoyable. Everyone benefits from the decrease of stress and negativity. Positivity is measured by observing the ways in which pupils interact with one another and the instructor.

Meanwhile, that of using a variety of activities during each class period posted a weighted mean of 4.53 in rank three. This finding shows another way by which teachers cope with classroom diversity.

Further and also notable were the following three items with equal weighted mean of 4.48 in rank five each. These are conducting stimulating lessons by relating the subject matter to the pupils' immediate concerns, sustaining classroom activities with playful environment to motivate pupils' maximum participation, and inducing pupils to respond enthusiastically by giving them extra points or additional grade for correct answers. These findings also point out how the teachers provide sufficient motivation for the pupils to enable them to enjoy the learning process and thereby develop to further extent their competencies.

The last item which obtained highly evident interpretation was that of bringing to the classroom plenty of visual materials that attract pupils' attention towards the lesson, with a weighted mean of 4.44. This finding enacts the usefulness of visual materials which is also one of the ways to provide sufficient motivation essential in maintaining the pupils' attention to varied classroom activities.

Finally, the lone indicator interpreted as evident got the lowest weighted mean of 3.79, in reference to that of providing new experiences for pupils by means of field trips or going to communities. This finding sustains its lowest from among the listed items since going out of the classroom is not done as often as the other classroom activities.

Summing up, the composite mean of 4.44 interpreted as highly evident is an indication of sufficient motivation used by the teachers to cope with classroom diversity and establish a positive classroom climate.

Hanesworth (2015) designed a model of diversity and inclusivity in embedding equality and diversity in the curriculum. Embedding equality and diversity in the curriculum is the creating of learning, teaching and assessment environments and experiences that proactively eliminate discrimination, promote equality of opportunity and foster good relations in a manner that values, preserves and responds to diversity.

Kay (2013) alleged that a positive classroom climate encourages student participation. It is important for pupils to be in a positive classroom where they are comfortable enough to express their ideas and questions. Creating this positive climate requires the teacher to lead by example.

Table 2.2

Teachers' Management of Classroom Diversity in Terms of
Enrichment Activities

| Items | WM | Rank | D |
|---|------|------|----------------|
| 1. Uses the classroom as a venue for different types of contests aimed to enhance pupils' varied skills | 4.45 | 5.5 | Highly Evident |
| 2. Applies other teaching strategies for experimentation and discovery of the level of effectiveness of said strategies | 4.48 | 3.5 | Highly Evident |
| 3. Monitors pupils' varied potentials to adopt classroom activities according to their interests and capabilities | 4.51 | 2 | Highly Evident |
| 4. Invites other teachers to share their specialization as resource persons when needs arise | 4.24 | 8 | Highly Evident |

| | | | |
|--|-------------|-----|-----------------------|
| 5. Trains bright pupils according to their manifested skills and capabilities | 4.45 | 5.5 | Highly Evident |
| 6. Adjusts teaching strategies and tempo according to the pupils' needs and interests | 4.56 | 1 | Highly Evident |
| 7. Assigns extra-curricular activities to enhance pupils' skills in other areas aside from the usual classroom setting | 4.48 | 3.5 | Highly Evident |
| 8. Develops and implements innovative plans for other forms of activities inside and outside the classroom | 4.43 | 7 | Highly Evident |
| Composite Mean | 4.45 | | Highly Evident |

Table 2.2 refers to the result of the respondents' assessment on the teachers' management of classroom diversity in terms of enrichment activities. All items obtained highly evident interpretation. The highest weighted mean of 4.56 was posted on that of adjusting teaching strategies and tempo according to the pupils' needs and interests, while 4.51 in rank two for that of monitoring pupils' varied potentials to adopt classroom activities according to their interests and capabilities. These findings relate with the concept of providing for individual differences.

The lowest weighted mean, so far, was 4.24 on that of inviting other teachers to share their specialization as resource persons when needs arise. This situation may not be very frequent but the teachers still follow this practices, as emphasized by the cited finding.

On the other hand, the items in middle ranks include the following: applies other teaching strategies for experimentation and discovery of the level of effectiveness of said strategies, assigns extra-curricular activities to enhance pupils' skills in other areas aside from the usual classroom setting, uses the classroom as a venue for different types of contests aimed to enhance pupils' varied skills, trains bright pupils according to their manifested skills and capabilities, and develops and implements innovative plans for other forms of activities inside and outside the classroom, with weighted means ranging from 4.48 down to 4.43. These findings indicate the other possible ways teachers utilize to cope with classroom diversity in terms of implementing enrichment activities.

As a whole, the composite mean of 4.45 interpreted as highly evident is an indication of the level ascribed to the teachers' utilization of varied forms of enrichment activities to cope with classroom diversity.

Hanesworth (2015) designed a model of diversity and inclusivity in embedding equality and diversity in the curriculum. Embedding equality and diversity in the curriculum is the creating of learning, teaching and assessment environments and experiences that proactively eliminate discrimination, promote equality of opportunity and foster good relations in a manner that values, preserves and responds to diversity.

Table 2.3
Teachers' Management of Classroom Diversity in Terms of
Recognition/Awards for Exemplary Performance

| Items | WM | Rank | D |
|--|------|------|--------------------|
| 1. Conducts classroom and school contests to bring out the best pupils to surface | 4.64 | 3.5 | Highly Evident |
| 2. Rewards pupils' performance through giving them additional grades in the subjects in which they excel | 4.68 | 2 | Highly Evident |
| 3. Praises performing pupils in front of other teachers and other pupils | 4.64 | 3.5 | Highly Evident |
| 4. Solicits funds for the purchase of medals for the pupils who manifest exemplary performance | 3.34 | 8 | Moderately Evident |

| | | | |
|--|-------------|---|-----------------------|
| 5. Brings to higher levels the outstanding pupils through giving them opportunities to join district and division contests | 4.63 | 5 | Highly Evident |
| 6. Seeks other channels through which the pupils could be recognized and rewarded | 4.31 | 7 | Highly Evident |
| 7. Recognizes pupils who manifest good attitude even if they do not excel in the class | 4.6 | 6 | Highly Evident |
| 8. Brings to the class food and other gift items to be given to the pupils who manifest exemplary performance | 5 | 1 | Highly Evident |
| Average/Weighted Mean | 4.48 | | Highly Evident |

Table 8 manifests the respondents' assessment of how they manage classroom diversity in terms of providing recognition/rewards for exemplary performance. In seven of eight listed items, the weighted means obtained were within the highly evident descriptive scale.

The highest weighted mean of 5 indicating a perfect score was on that of bringing to the class food and other gift items to be given to the pupils who manifest exemplary performance. This finding reveals that all teachers use this form of reward to motivate the pupils to perform to the best of their abilities and be in the higher position in terms of class standing.

The lowest weighted mean, so far, was 3.34 interpreted as moderately evident on that of soliciting funds for the purchase of medals for the pupils who manifest exemplary performance. This finding is quite moderate probably due to the teachers' awareness of the No Collection policy which may put them in jeopardy if they collect contributions from other people even for the purpose of using the fund for educational purposes. Hence, this item was the least prioritized by the teachers.

Meanwhile, the items in middle ranks include the following: rewarding pupils' performance through giving them additional grades in the subjects in which they excel, conducting classroom and school contests to bring out the best pupils to surface, praising performing pupils in front of other teachers and other pupils, bringing to higher levels the outstanding pupils through giving them opportunities to join district and division contests, recognizing pupils who manifest good attitude even if they do not excel in the class, and seeking other channels through which the pupils could be recognized and rewarded, with weighted means ranging from 4.68 down to 4.31, all interpreted as highly evident. These findings point out the varied ways utilized by the teachers to cope with classroom diversity in terms of providing rewards and recognition for the pupils' exemplary performances.

As a whole, the composite mean of 4.48 interpreted as highly evident is an indication of the level that teachers' manifest to cope with classroom diversity in terms of providing rewards and recognition for the pupils' exemplary performances.

The study of Decker, Dona, & Christenson (2007) noted that teacher-child relationships characterized by more warmth and responsiveness, and by less anger and harshness, are linked to children's greater academic achievement and social competence.

Heskey (Retrieved November 2013 from: (www.ehow.com)) averred that promoting a positive school culture will improve many different areas of student's behavior. In class, pupils who are in a positive climate will be more creative and perform better. Promoting a positive school culture will develop a sense of community which will make teachers and pupils happier in their work.

Table 3.1
Teachers' Management of Classroom Diversity
in Terms of Teaching Strategies Employed

| Items | WM | Rank | D |
|---|-------------|------|-----------------------|
| 1. Uses varied teaching strategies and techniques that would adapt to the different types of pupils to provide for individual differences | 4.63 | 4 | Highly Evident |
| 2. Uses real life situations, concrete objects and appropriate teaching materials to help in the pupils' understanding of abstract concepts | 4.66 | 1.5 | Highly Evident |
| 3. Provides varied activities when grouping the pupils while using cooperative learning strategy | 4.66 | 1.5 | Highly Evident |
| 4. Asks questions from the easiest literal level to the most complex interpretative and critical levels to develop pupils' critical thinking skills | 4.64 | 3 | Highly Evident |
| 5. Uses role playing and dramatization not merely for the development of cognitive but also for that of the affective skills | 4.48 | 6 | Highly Evident |
| 6. Employs the school ground for out of classroom activities to cut off monotony and boredom on the part of the pupils | 4.33 | 7 | Highly Evident |
| 7. Adopts novel and relevant topics while using story telling technique | 4.20 | 8 | Evident |
| 8. Evaluates pupils' performance according to set norms and standards | 4.60 | 5 | Highly Evident |
| Average/Weighted Mean | 4.53 | | Highly Evident |

Table 3.1 on the following page shows the respondents' assessment of the teachers' management of classroom diversity in terms of teaching strategies employed.

Two items shared the highest weighted mean of 4.66 in rank 1.5 each and interpreted as highly evident. These are using real life situations, concrete objects and appropriate teaching materials to help in the pupils' understanding of abstract concepts and providing varied activities when grouping the pupils while using cooperative learning strategy. These findings indicate the most common ways applied by the teachers to cope with classroom diversity. Using real life situations adheres to the concept of concretizing what is abstract and adapting the teaching strategy to the basic interests and actual experiences of the pupils. By citing examples that relate with real life situations, the learning process becomes more convenient for the pupils.

On the other hand, the use of cooperative learning strategy has become a trend in stimulating pupils' interests to enable their maximum participation in classroom activities. It is also an effective way to minimize the negative effect of having a great number of pupils in a class, along with the limited time allotted for a class period. Through such a way, all pupils are given equal opportunity to participate in classroom activities instead of the traditional Socratic method wherein only the fast learners are given more opportunities to answer the teacher's questions relative to the lesson.

In rank three, that of asking questions from the easiest literal level to the most complex interpretative and critical levels to develop pupils' critical thinking skills obtained a weighted mean of 4.64 also interpreted as highly evident. This finding relates with the art of questioning to stimulate the learners.

In rank four, that of using varied teaching strategies and techniques that would adapt to the different types of pupils to provide for individual differences got a weighted mean of 4.63, similarly interpreted as highly evident. This finding point out the significance of the use

of varied teaching strategies and activities in the teaching-learning process for the following aims and reasons: (to) provide for individual differences; stimulate the pupils through varied forms of meaningful learning experiences; minimize boredom and monotony, discover the pupils' varied potentials, strengths and weaknesses; try out and select the most effective teaching strategies and activities adapted to different groups of learners; and improve the pupils' pace of learning.

The other indicators within the highly evident interpretative scale are as follow: evaluating pupils' performance according to set norms and standards, using role playing and dramatization not merely for the development of cognitive but also for that of the affective skills, and employing the school ground for out of classroom activities to cut off monotony and boredom on the part of the pupils, with respective weighted means of 4.60, 4.48 and 4.33 in consecutive ranks of five to seven.

Finally, the item with the lowest weighted mean of 4.20 interpreted as evident was that of adopting novel and relevant topics while using story telling technique. This could have been least prioritized by the teachers although the computed mean is still high.

As a whole, the composite mean of 4.53 interpreted as highly evident is an indication of the teachers' use of varied teaching strategies to cope with classroom diversity. This finding implies the teachers' instructional competence.

Aguirre, et al. (2010) stressed that coping with classroom diversity can be attained through implementation of varied school activities that could help develop the pupils' development of varied skills and competencies.

To this end, Acero et al. (2009) suggested the teachers' use of varied teaching strategies to facilitate the teaching-learning situation. Application of these strategies varies from one situation and from one group of learners to another. They also cited that there is no best teaching strategy but each is best according to its applicability to the type of learners and to the learning situation or environment. Hence, teachers must be adept in the selection of the most appropriate teaching strategy in accordance to the existing learning factors and variables.

Table 3.2
Teachers' Management of Classroom Diversity
in Terms of Evaluation Process

| Items | WM | Rank | D |
|---|-------------|------|----------------|
| 1. Uses uniform standard in evaluating pupils academic performance | 4.56 | 4.5 | Highly Evident |
| 2. Prepares adequate and reliable test items that would not be prejudicial to the pupils' learning abilities | 4.56 | 4.5 | Highly Evident |
| 3. Measures pupils' learning abilities through other ways aside from administering teacher-made test | 4.58 | 3 | Highly Evident |
| 4. Allots proper allocations and distribution of grade point average by assigning just percentage for quizzes, recitation, long test, projects and other areas where pupils are to be evaluated | 4.54 | 6 | Highly Evident |
| 5. Provides concrete bases for assigning grades | 4.53 | 7 | Highly Evident |
| 6. Follows the school standard in measuring and evaluating pupils' educational outcome | 4.68 | 1 | Highly Evident |
| 7. Includes only test items which were taught adequately | 4.51 | 8 | Highly Evident |
| 8. Uses results of tests for the improvement of teaching strategies and pupils' learning skills | 4.59 | 2 | Highly Evident |
| Average/Weighted Mean | 4.57 | | Highly Evident |

Table 3.2 indicates the respondents' assessment of the teachers' management of classroom diversity in terms of evaluation process.

The highest weighted mean of 4.68 interpreted as highly evident was posted on the item pertaining to that of following the school standard in measuring and evaluating pupils' educational outcome. This finding emphasizes the wide implementation of a school policy in terms of grading the pupils' performance. It could have been most prioritized by the teachers since it is their duty to abide by every school policy; hence, mandatory.

In rank two, that of using results of tests for the improvement of teaching strategies and pupils' learning skills obtained a weighted mean of 4.59 also interpreted as highly evident, as all the other indicators. This finding indicates that tests are not merely used for grading, but also in gathering information about such variables as the effectiveness of the utilized teaching strategies and classroom activities, along with diagnosing of the pupils' strengths and weaknesses and evaluating their rate of improvement in developing varied competencies.

In rank three, that of measuring pupils' learning abilities through other ways aside from administering teacher-made test got a weighted mean of 4.58, while 4.56 each on those of using uniform standard in evaluating pupils academic performance and preparing adequate and reliable test items that would not be prejudicial to the pupils' learning abilities. These findings also emphasize the different ways by which the teachers cope with classroom diversity in terms of evaluating pupils' performance.

The remaining items include the following: allotting proper allocations and distribution of grade point average by assigning just percentage for quizzes, recitation, long test, projects and other areas where pupils are to be evaluated, providing concrete bases for assigning grades and including only test items which were taught adequately, with respective weighted means of 4.54, 4.53 and the lowest at 4.51 but still very high.

As a whole, the composite mean of 4.57 interpreted as highly evident is an indication of the level of the teachers' utilization of evaluation procedures to cope with classroom diversity.

The use of different teaching strategies is fundamental, while the application of measurement and evaluation is essential. As cited by Calmorin and Calmorin (2008), in all the activities of the school, the teachers arrive at the most critical period – that of evaluating educational outcomes. The purpose and functions of measurement and evaluation includes the following: to measure students' achievement, evaluate instruction, motivate learning, predict success, diagnose the nature of difficulties, evaluate teacher's performance as well as school facilities, assess curriculum, school programs, instructional materials and facilities, and school managers.

Table 4
Results of Test of Significant Relationship between the
Paired Variables of the Study

| Compared Variables | Computed adjusted r square | Description | Decision |
|---|----------------------------|-------------|-----------|
| Evidence of Diversity and Management of Diversity | 0.9002 | Significant | Reject Ho |

Table 4 shows the summarized results of the test of significant relationship between the selected paired variables of the study.

The comparison between classroom diversity and management of diversity obtained a computed adjusted r square value of 0.9002 which exceeded the critical value at 0.707. This finding indicates a highly significant relationship between the two sets of paired variables compared. Hence, the null hypothesis associated with this area of comparison was rejected. Inference from this finding implies that the teachers exerted great effort in managing great extent of classroom diversity as a coping strategy.

Table 5

Action Plan to Improve Classroom Management Practices and Promote Positive Classroom Climate

Rationale: In view of the highly evident findings which preempt room for recommendations, the following action plan is a form of reinforcement rather than checking the areas which obtained low ratings from the assessment since there were no low ratings.

| Objectives | Program / Activity | Strategies | Persons Involved | Sources of Fund | Expected Outcome |
|---|---|---|---|--------------------------------------|---|
| Strengthen pupils' manifested multiple intelligences through contests | Contests in different subject areas | Teachers prepare materials and program for the contest proper | Pupils in all Grade levels Teachers School Head | School Fund | Pupils are made more aware of the importance of learning |
| Make more enjoyable the learning process through out of school activities | Hiking in a nearby farm or field in the community | Seek permission from Barangay officials for the activity; Require pupils to participate; Require teachers to guide pupils | Pupils in the higher grade levels Teachers Community Volunteers | School Fund PTA Fund Donations | Pupils enjoyed the activity and were exposed to different types of plants and trees; they were also familiarized with the location and direction of the farm they visited |
| Enhance social accountability through working in the community | Clean and Green Drive in the Community | Coordinate with community leaders and parents; Instruct pupils to bring tools and plant seedlings | Teachers and Head Teachers Pupils Community Volunteers | School Fund MOOE | Participants enhanced their civic consciousness and social responsibility |

| | | | | | |
|---|----------------------|--|--|----------------------|--|
| Strengthen teachers' use of varied and innovative teaching strategies | Seminar/ Workshop | Require teachers to attend the seminar Invite resource speakers | Resource speakers, school heads and teachers | MOOE Canteen Fund | Teachers enhanced knowledge and acquired skills in the use of varied and innovative teaching strategies which can be used to harness pupils' manifested multiple intelligences |
|---|----------------------|--|--|----------------------|--|

Conclusions

From the summarized findings, the following conclusions were drawn:

1. The pupils' performance is above satisfactory level, as sustained by grade point average which is above average level.

2. There is a sufficient evidence of diversity among the pupils in the classroom based on the teachers' assessment of their interest, behavior, cultural traces, intellectual capability and social traits.

3. The teachers are competent in managing classroom diversity, as exemplified by their effective utilization of motivation techniques, enrichment activities and provision of rewards and recognition for the pupils' exemplary performances.

4. Teachers utilize extensively effective methods of selecting teaching strategies and classroom activities to cope with diversity.

5. The greater the evidence of diversity, the more extensive the teachers use management techniques and strategies to cope with said diversity.

6. The designed action plan to improve classroom management practices among teachers and promote positive classroom climate is the final output of the study.

Recommendations

From the conclusions drawn, the following recommendations are hereby forwarded:

1. The satisfactory performance of the pupils based on their attained grade point average must be maintained or even improved further through the teachers' consistent monitoring of the process of developing their varied competencies through instruction and implementation of varied classroom and school activities aimed to minimize if not totally eradicate the negative effects of diversity.

2. The school administrators, as much as possible, should direct further improvement of school activities and programs to ensure the growth and development of teachers in the academe, of pupils in the school and of the parents' trust in the communities, all for the purpose of coping with diversity in the classrooms and in the schools in totality.

3. The schools, through the school heads and teachers, should be more united in developing more effective instructional strategies that may be helpful in the improvement of the institution. Further, they are advised to devise more effective techniques to enhance the pupils' acquisition of varied types of learning skills and help them harness their varied potentials, traits, capabilities and competencies.

4. Teachers may use the findings of this study to help them validate their concerns about the use of different teaching strategies that may enable the pupils to enhance the combination of intelligences that are present in them, but may somehow be idle or stagnant.

5. In coping with diversity, both school heads and teachers must implement more innovative school and classroom programs that would feature socialization, socialization and camaraderie among all school personnel, parents and pupils.

6. The designed action plan must be implemented at the soonest time possible. Further, future researchers may conduct in other places studies similar or related to this present study to determine whether similar or different trends and practices occur in those areas and to help strengthen the reliability of the findings of this study. They may as well use this study for reference purposes.

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Effect of deposition of Ag onto TiO₂ support by reactive magnetron sputtering on the selective photocatalytic hydrogenation of 3-nitrostyrene

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Abstract

In this work, nanocrystalline TiO₂ supported Ag catalysts have been prepared by the pulsed direct current reactive magnetron sputtering technique which the Ag loading content was varied by adjusting the sputtering time. The obtained catalysts were characterized by ICP, XRD, BET, UV-VIS, SEM, and EDX. The photocatalytic performance of catalysts was examined via the photocatalytic hydrogenation of 3-nitrostyrene in ethanol suspensions of TiO₂ under UV light irradiation at room temperature and atmospheric pressure for 1 h without the reduction gas. In addition, Ag/TiO₂ catalysts were prepared by conventional incipient wetness impregnation method for comparison purposes. From this photocatalytic reaction, ethanol served as a hydrogen source and redox reaction can occur, including the reduction of 3-nitrostyrene to 3-vinylniline and the oxidation of ethanol to acetaldehyde. The results showed that the deposition of Ag onto TiO₂ supports by magnetron sputtering method exhibited higher photocatalytic activity than the impregnation ones and pure TiO₂ support. This suggests that the reactive magnetron sputtering was a great method for the deposition of metal onto the support and can be applied for the practical catalytic process.

Keywords: hydrogenation, photocatalysis, magnetron sputtering, Ag/TiO₂ photocatalyst

1. Introduction

Functionalized anilines are important intermediates for the synthesis of fine chemicals, pharmaceutical, polymers, pigments, and herbicides [1-4]. 3-vinylaniline (3-VA) is a significant compound of aniline having a vinyl group which is typically produced by selective catalytic hydrogenation of 3-nitrostyrene (3-NS) in the presence of hydrogen gas (H_2) by using noble metal catalysts. This reaction is normally operated under medium-to-high temperature and pressure [1, 4]. However, the safety issues associated with handling during plant scale production, flammable hydrogen gas, and high reaction temperature remain major concerns [3, 4]. Furthermore, the development of high efficiency and selective for hydrogenation of organic molecules is one of the most important goals of the chemical industries [5]. The selective hydrogenation of 3-NS to 3-VA is challenging because there are two reducible functional groups, which can be hydrogenated in 3-NS. The reaction mechanism of 3-NS hydrogenation was proposed by Haber et al [1].

A photocatalytic system is an encouraging approach for green and organic synthesis has recently attracted increasing attention due to its high safety, the broad range of its utilization, and clean process [2-6]. Among various photocatalysts, titanium dioxide (TiO_2) has widely used for this reaction owing to its high chemical stability, inexpensive, non-toxicity, and easily separated from the reaction mixture [2, 5-10]. Photocatalytic hydrogenation of nitroaromatics is generally carried out in organic solvents, which is regarded as a hole scavenger and hydrogen source. Alcohol is one of the most common solvents for this photocatalytic hydrogenation of nitroaromatics because alcohol is readily available and inexpensive [2-6, 11]. Upon irradiation, which the light is absorbed on TiO_2 surface, electrons (e^-) are induced in the conduction band (CB) and holes (h^+) simultaneously generated in the valence band (VB), causing oxidation of alcohol to carbonyl compounds and reduction of 3-NS to 3-VA, respectively [2-4, 12, 13].

The photocatalytic performance of this reaction depends on both the catalysts and the reaction conditions [6-8, 14-17]. To improve the photocatalytic performance of TiO_2 for selective hydrogenation of nitro compounds, the most popular method was the incorporating onto TiO_2 surface of either noble metal, such as Ag, Au, Pt, and Pd, or base metal such as Ni and Cu nanoparticles [5, 7, 18, 19]. In the previous reports, the loading of Ag nanoparticles has been found to endow inactive TiO_2 with high photocatalytic efficiency in both photoreduction and photooxidation process. Ag/ TiO_2 catalysts contribute to improving the selectivity and activity by trapping the electrons with consequent enhancement of the charge separation to

preventing the fast recombination of e^- and h^+ pairs [5, 7, 19, 20]. Besides, Ag has received attention due to its excellent reactivity and selectivity, low cost, high stability, and easy to access [5, 20, 21].

Generally, the metal deposited TiO_2 catalysts is mostly prepared by the conventional impregnation method, which requires a metal precursor solution and heat treatment. Also, this technique generates waste in the process. Alternatively, the reactive magnetron sputtering technique is a typical deposition process to produce high-quality coatings and thin film products for several applications, including tool protecting layers, packaging coatings, micro-electronic coatings, and so on. Applying this technique, which offers many advantages, to prepare powder products can be used for the new direct metal deposition method on the catalyst and/or support powder, which can be carried out in a one-step without additional heating applied to the substrate and generation of waste in the process [22-26].

Several reports were studied for the reduction of nitro groups using nanoparticles. However, the effect of Ag loading onto TiO_2 supports on the photocatalytic hydrogenation of 3-NS in ethanol was not deeply studied and have been published only a few studies. Moreover, the deposition Ag onto TiO_2 powder by magnetron sputtering technique for this photocatalytic reaction is not reported so far. In this study, the photocatalytic performance of Ag/ TiO_2 as prepared by magnetron sputtering and impregnation methods were examined via the selective photocatalytic hydrogenation of 3-NS in ethanol solvent under UV light irradiation of P25- TiO_2 for 1 h at room temperature and atmospheric pressure.

2. Experimental

2.1. Reagents and materials

Commercial Degussa P25- TiO_2 nanoparticles, 3-nitrostyrene ($C_8H_7NO_2$) was purchased from Sigma-Aldrich (96%, Germany), ethanol (C_2H_6O) was obtained from Merck (Germany), Silver nitrate ($AgNO_3$, >99% purity, POCH), Ag sputtering target (Silver Metal, 75 mm. diameter, 99.5%). Nitrogen (N_2 >99%, UHP) was provided from Linde (Thailand) Co., Ltd.

2.2. Catalyst preparation

Degussa P25- TiO_2 was used as the catalyst support. Ag/ TiO_2 catalysts were prepared by using the reactive pulsed DC magnetron sputtering method to deposit Ag on TiO_2 support. 2 grams of the P25- TiO_2 powder was loaded in the sputtering chamber and placed in an oscillating bowl, which was located directly underneath the Ag sputtering target with a diameter of 75 mm. The oscillator bowl caused the TiO_2 particles to transfer around the bowl

during the deposition process which resulted in a uniform coating on the substrate. Sputtering process was carried out in an argon plasma atmosphere at 2 Pa using pulse frequency of 200 kHz and power of 200 W for each run. The sputtering time was adjusted covering the range 2.5, 3.75, and 5 min, respectively.

Additionally, Ag/TiO₂ catalysts were prepared by conventional incipient wetness impregnation method for comparison purposes. 2 grams of P25-TiO₂ powder was impregnated with an aqueous solution of silver nitrate (AgNO₃). This Ag precursor solution was gradually dropped onto the TiO₂ supports to obtain the desired content. The obtained samples were dried in an oven at 110 °C overnight and then calcined in a muffle furnace at 400 °C under an air flow with a heating rate 10°C/min for 2 h.

2.3. Catalyst characterization

All catalyst powder characterizations were investigated at room temperature. The crystalline structures and phase compositions were examined by X-ray diffraction (XRD) using a SIEMENS XRD D5000X-ray diffractometer (Germany) with Cu K α irradiation and a Ni filter at the range between 20° to 80°. The average crystallite size of the catalysts was calculated from line broadening according to Scherrer's equation. The morphology and elemental distribution on a surface of the catalysts was investigated with the Scanning electron microscope and Energy Dispersive X-ray Spectrometry (SEM-EDX) using Link Isis series 300 program SEM (JEOL model JSM-5800LV). The BET surface area was measured through single-point nitrogen gas physical adsorption isotherm at 77 K using the Micromeritics Chemisorb 2750 Pulse Chemisorption System (United States). The loading of Ag in catalysts was measured by Inductively Coupled Plasma-Optical Emission Spectroscopy (ICP-OES) using Perkin Elmer Optima 7000DV. UV-Vis spectroscopy was performed by using the Perkin Elmer Lambda 650 spectrophotometer (United States) to determine absorption spectra and band gap of catalysts.

2.4. Photocatalytic reaction results

The photocatalytic hydrogenation was carried out in a cylindrical quartz reactor. 0.2 grams of catalysts (pure or Ag/TiO₂) was taken into a stirred slurry reactor and then 3-nitrostyrene were dissolved in 40 cm³ of ethanol solvent and subsequently added to quartz reactor. This quartz reactor was sealed with a septum cap, sonicated for 5 min to dispersed catalyst well and then purged with N₂ for 5 min. The reaction was started by turning on the UV light that was photo-irradiated from the outside using UV-light bulbs (Philips' Germicidal

Ozone UV Quartz Glass UVC Bulb; 16 watts, 6 bulbs) with magnetic stirring at room temperature and continuously irradiated for 1 h. The resulting irradiated mixture was analysed every 30 min of the irradiation time by gas chromatography equipped with a flame ionization detector (GC-FID) using Shimadzu Rtx[®]5 Restek columns (United States) and Shimadzu DB1-wax Agilent columns (United States). The quantitatively catalytic performance was determined as follows:

The conversion of the reactant (X_A) was defined as

$$X_A = \frac{C_{A,0} - C_A}{C_{A,0}} \times 100 \%$$

and selectivity of desired products (S_B) was calculated as

$$S_B = \frac{C_B}{C_{A,0} - C_A} \times 100 \%$$

where $C_{A,0}$ and C_A refer to the concentrations of the reactant at initial and every half an hour during reaction time, respectively. C_B is the product concentration. The reactant and product concentrations were calibrated with authentic samples.

3. Results and discussion

3.1. Characterization of Ag/TiO₂ catalysts

The Ag loading content of all prepared Ag/TiO₂ catalysts was measured by using the ICP technique. For the sputtering Ag/TiO₂ catalysts, the correlation between %Ag loading content and sputtering time is shown in Figure 1. The results showed that the amount of Ag increased linearly with sputtering time due to the constant flux of Ag atoms deposited on the TiO₂ supports. To compare with Ag/TiO₂ catalysts prepared by the conventional impregnation method, catalysts with similar %Ag loading content were prepared and the ICP results are showed in Table 1.

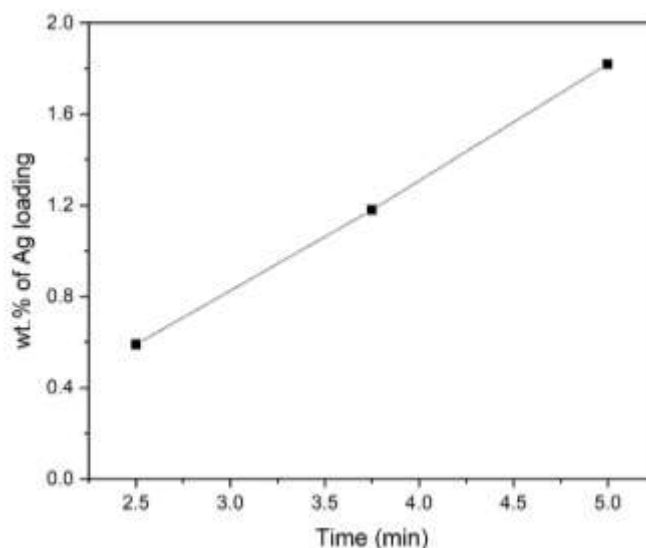


Figure 1. %wt. of Ag-adhered onto P25-TiO₂ prepared by magnetron sputtering method.

Table 1. Specimen designation, %loading content of Ag onto TiO₂, crystalline size, BET surface area, and band gap of all catalysts.

| Catalysts | %wt. of Ag | Crystalline size (nm) | BET Surface Area (m ² /g) | Band Gap (eV) |
|-----------|------------|--------------------------|---|------------------|
| P25 | - | 24 | 47 | 3.19 |
| Sp1-P25 | 0.59 | 24 | 46 | 3.08 |
| Sp2-P25 | 1.18 | 23 | 47 | 3.04 |
| Sp3-P25 | 1.82 | 24 | 47 | 3.00 |
| Imp1-P25 | 0.61 | 24 | 46 | 2.93 |
| Imp2-P25 | 1.21 | 25 | 47 | 2.90 |
| Imp3-P25 | 1.80 | 25 | 46 | 2.84 |

The XRD patterns of pure P25-TiO₂ and prepared Ag/TiO₂ catalysts are shown in Figure 2. The P25-TiO₂ catalyst presented the characteristic main peaks for the anatase (101) phase at 2θ degrees = 25.3° and rutile (110) phase at 2θ degrees = 27.4° [15]. It can be observed that both sputtering and impregnation Ag/TiO₂ catalysts exhibited the same characteristic peaks of the anatase and rutile phase as pure P25-TiO₂. The peaks corresponding to Ag crystallites in all sputtering and impregnation Ag/TiO₂ catalysts are not observable due to the low amount of Ag loading and high dispersion of Ag on the TiO₂ supports.

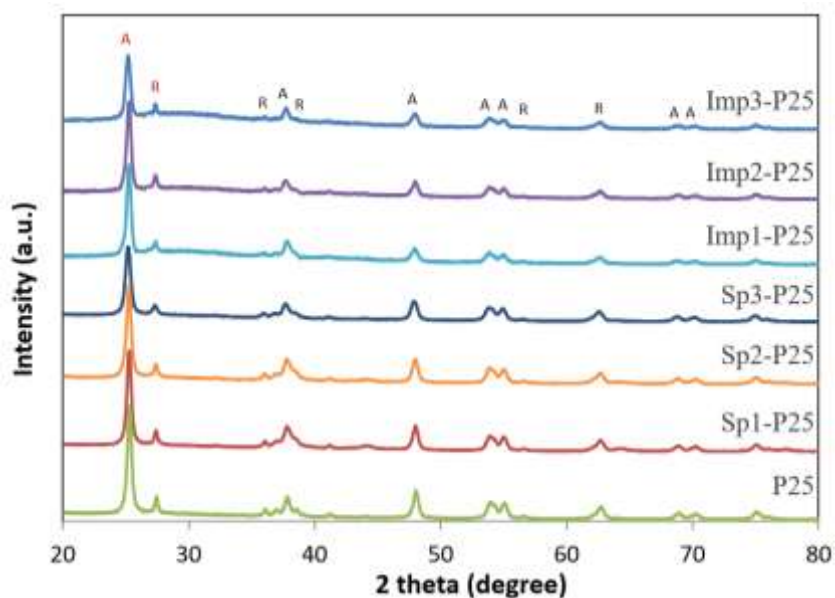


Figure 2. XRD patterns of all catalysts

The average crystallite size of all catalysts was calculated by using Debye-Scherrer's equation which are summarized in Table 1. Accordingly, it can be concluded that the deposition of Ag by both methods did not affect the TiO₂ crystalline structure and crystallite size of TiO₂ support even after increasing the sputtering time or Ag loading content.

The BET surface areas of pure P25-TiO₂ and prepared Ag/TiO₂ catalysts are listed in Table 1. P25-TiO₂ has a surface area of 47 m²/g and the prepared Ag/TiO₂ did not change the surface area. It can be clearly observed that the BET surface area of TiO₂ did not undergo significant changes throughout the deposition process.

The UV-Vis absorption spectra are used to investigate the light absorption of pure P25-TiO₂ and both sputtering and impregnation prepared Ag/TiO₂ catalysts; the results are shown in Figure 3. The typical band of P25-TiO₂ was found at 392 nm, which could be ascribed to the light absorption caused by the excitation of electron transfer from the valence band to the conduction band [27]. The generally absorption spectra of Ag deposited TiO₂ supports consisted of three main characteristic bands, including the sharp absorption band at wavelengths less than 400 nm, which was attributed to the band structure of the pure TiO₂, the absorption band at wavelengths of 700 – 800 nm, because of the Ag nanoparticle, and the absorption tail between 400 and 500 nm, which was assigned to the interfacial charge transfer (IFCT) phenomenon between TiO₂ electrons and Ag species. The impregnation Ag/TiO₂ catalysts showed all three adsorption bands, indicating the interaction between Ag species and the TiO₂ support. Meanwhile, the sputtering Ag/TiO₂ catalysts exhibited typical adsorption

bands of TiO₂ and Ag nanoparticles except for the absorption tail in the range of 400-500 nm related to IFCT. In addition, increasing of Ag loading content resulted in enhancement of visible light adsorption (400 - 700 nm).

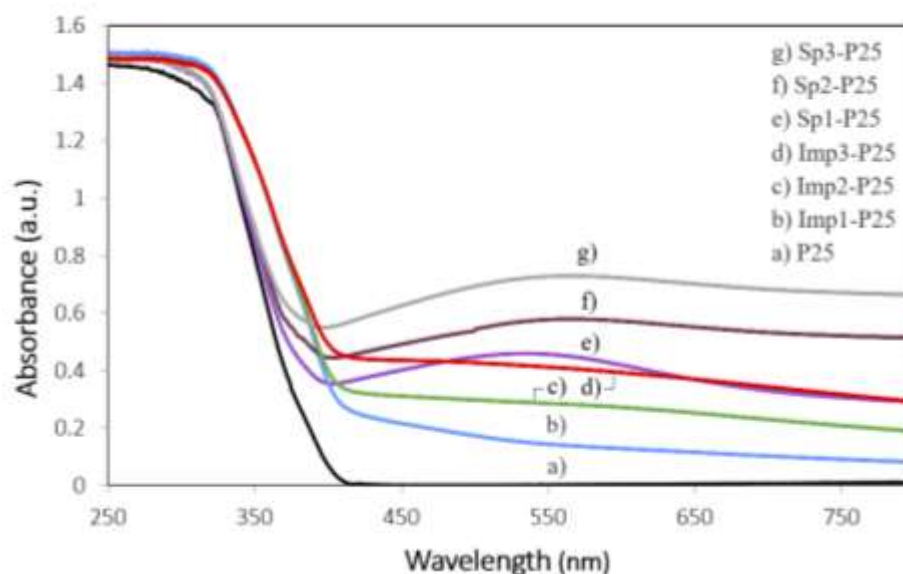


Figure 3. UV–Vis absorbance spectra of all catalysts

The band gap energy of pure and various Ag/TiO₂ catalysts was determined by using Tauc relation via the plot of $(h\nu\alpha)^{1/2}$ versus photon energy ($h\nu$), which is shown in Figure 3. and Table 1. The band gap energy of pure anatase and rutile phase was 3.2 eV and 3.0 eV, respectively [7, 28, 29]. The results showed that the increased Ag loading content narrows the band gap.

Additionally, the shift in band gap energy of the TiO₂ supports was observed after modifying with Ag in the case of impregnation Ag/TiO₂ catalysts. On the other hand, only a small shift was seen in the case of the sputtering Ag/TiO₂ catalysts. This indicates that the deposition of Ag onto TiO₂ by sputtering technique causing less interaction between the Ag and the TiO₂ supports than the impregnation method due to the different temperatures used in the deposition process. For the sputtering process, it could proceed at room temperature in a vacuum whereas the impregnation process did not require heat treatment at about 400 °C. Accordingly, the main structural characteristics of the TiO₂ supporting particles remained unchanged.

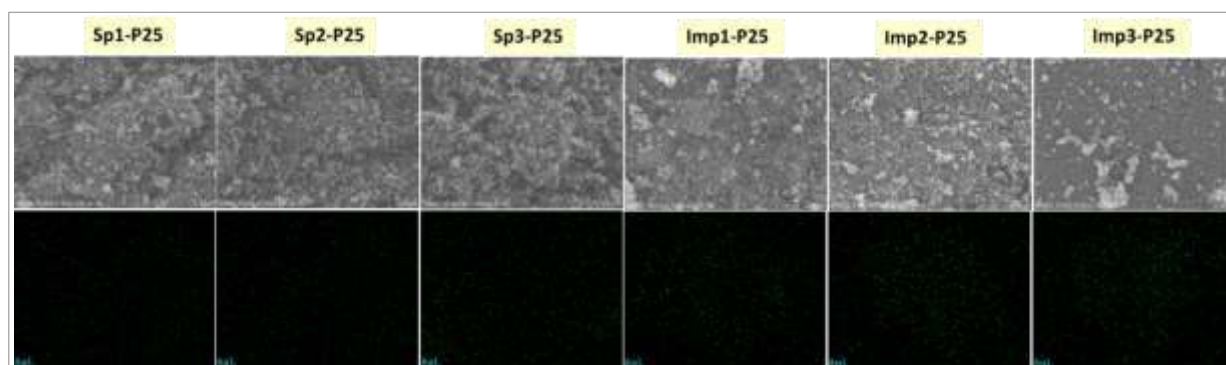
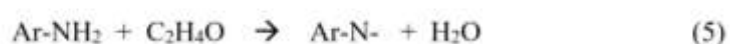
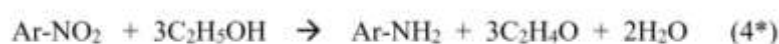
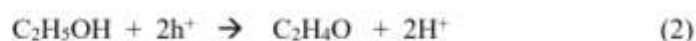


Figure 4. SEM images and EDX spectra of all Ag/TiO₂ catalysts

SEM image and EDX spectrum of the as-prepared Ag/TiO₂ catalysts were presented in Figure 4. The micrographs and spectrum confirmed the presence of Ag on TiO₂ support. It is clearly observed the agglomeration of nanosized particles for all samples. Also, the results showed that the dispersion of Ag onto TiO₂ support of sputtering catalysts was higher uniform than that of impregnation catalysts. However, there is not much difference between the Ag/TiO₂ catalysts prepared by both methods. The uniform distribution of these elements suggests the uniform dispersion of Ag onto TiO₂ supports.

3.2. Photocatalytic reaction results

The photocatalytic activity of the P25-TiO₂ and as-prepared Ag/TiO₂ catalysts were evaluated by the selective photocatalytic hydrogenation of 3-NS in ethanol as hydrogen donor under UV light irradiation for 1 h without the use of a reduction gas. The photocatalytic reaction equations and mechanism are shown in Scheme 1 (equation 1-4*).



Scheme 1. Simplified reaction pathways in the hydrogenation of nitroaromatics (Ar-NO₂) to amino aromatics (Ar-NH₂) in ethanol solvent.

Upon light irradiation, e⁻ are induced in the CB and h⁺ are generated in the VB, causing oxidation of ethanol to acetaldehyde and reduction of 3-NS to 3-VA, respectively. It was found that 3-NS were quantitatively converted into 3-VA with an almost stoichiometric amount of

acetaldehyde. However, by-products such as imine and N-alkylated products can be produced from the condensation of acetaldehyde and 3-VA when reaction reached nearly 100% conversion in the presence of pure P25-TiO₂, which is shown in equation 5. In addition, only NO₂ group of 3-NS can be reduced by e⁻ and H⁺ while the vinyl group of 3-NS was not reduced, indicating this photocatalytic system exhibited the high selectivity toward 3-VA which is the desired product.

The photocatalytic performances in terms of %conversion of 3-NS and % selectivity of 3-VA on P25-TiO₂ and Ag/TiO₂ are summarized in Table 2. Ag/TiO₂ shows the increased 3-NS conversion as compared to pure P25-TiO₂, even the 3-NS conversion did not significantly larger change. This due to the migration of photogenerated e⁻ in CB to the Ag nanoparticles, causing enhance the charge separation between e⁻ and h⁺ pairs and will, in principle, quicken the oxidation of the ethanol and the simultaneous reduction of 3-NS [2, 3, 5-7]. However, with the further increase of Ag doping content, the 3-NS conversion decreased. This is probably because the large agglomerated Ag particles loaded on TiO₂ surface covered the active sites of TiO₂ and suppress the adsorption of 3-NS and photogenerated e⁻ and h⁺ by light.

Table 2. The photocatalytic activity for the selective photocatalytic hydrogenation of 3-nitrostyrene in ethanol over pure P25-TiO₂ and Ag/P25-TiO₂ under UV light at room temperature and an atmospheric pressure for 1 h.

| Catalysts | %Conversion of 3-NS | %Selectivity to 3-VA |
|-----------|---------------------|----------------------|
| P25 | 63 | 86 |
| Sp1-P25 | 69 | 100 |
| Sp2-P25 | 72 | 100 |
| Sp3-P25 | 56 | 99 |
| Imp1-P25 | 67 | 99 |
| Imp2-P25 | 70 | 100 |
| Imp3-P25 | 55 | 98 |

In addition, the selectivity of 3-VA was almost 100% when depositing Ag onto TiO₂ support, which indicated that by-products were not formed except desired 3-VA and acetaldehyde in this reaction. This because NO₂- group of 3-NS is adsorbed on Ag through partial electron transfer from Ag to 3-NS, which e⁻ in Ag are consumed by the reduction of -NO₂ group (3-NS) to -NH₂ group (3-VA). This is in good agreement with our above-mentioned

results. Furthermore, the interaction between Ag onto TiO₂ and 3-NS was weak, causing suppress the consecutive condensation of 3-VA and acetaldehyde [5, 6, 12]. It is interesting to note that Ag nanoparticles act as reduction sites and significantly affect to the condensation reaction of 3-VA and acetaldehyde in this process.

One explanation may be that the photocatalytic activity of Ag/TiO₂, prepared by magnetron sputtering, was not significantly higher than that of the Ag/TiO₂ prepared by the impregnation method. The best performance, in both 3-NS conversion and selectivity to 3-VA, of the Ag/TiO₂ catalyst with a 1.2 wt.% as-prepared by magnetron sputtering, results from an optimal combination of Ag loading content, high dispersed of Ag nanoparticles and lower recombination of e⁻ and h⁺. This clearly indicates that the high activity and selectivity in the presence of Ag/TiO₂ are reasoned in terms of the selective adsorption of the 3-NS, the charge separation efficiency, and the restriction of the 3-VA re-adsorption.

4. Conclusions

The selective photocatalytic hydrogenation of 3-nitrostyrene to 3-vinylaniline was carried out in ethanol suspension of P25-TiO₂ photocatalysts under UV light irradiation to investigate the photocatalytic performance of all catalysts. The results showed that this photocatalytic system using ethanol solvents as hydrogen source is a great process, which was safe and can be produced valuable products. Deposition of Ag onto TiO₂ supports by magnetron sputtering method exhibited higher photocatalytic activity than the impregnation ones and pure P25-TiO₂ support, owing to the combination of an optimal Ag loading content, high dispersed Ag nanoparticles, high charge separation efficiency, slow electron-hole recombination process, and high selective adsorption of the 3-NS. This suggests that the reactive magnetron sputtering technique has successfully been used to deposit Ag onto the TiO₂ support powder and was a promising technique for deposition of metal onto the support and use as the practical catalytic process.

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Effect of temperature and pressure on cracking side reaction of methyl stearate over ZrO_2 via ketonization

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Abstract

The upgrading of fatty acids and derivatives into fuels and other useful chemicals or value products is growing interested in recent years. Methyl stearate is one of the key fatty acid methyl ester (FAME) component of biodiesel fuel and it becomes more attention in Thailand as an alternative and renewable diesel fuel. Ketonization is one of the most reaction to transform carboxylic esters into ketones, carbon dioxide, and dimethyl ether. Generally, the ketonization of fatty acids is carried out in the gas phase at high temperatures ranging from of 400-500 °C at atmospheric pressure. However, the cracking reaction usually occurs as the side reaction that resulting to decrease the selectivity and restrict the yield of the desired ketone product. Furthermore, the key factors such as temperature and pressure were described as the effects which promote cracking side reaction during ketonization. The effect of temperature (400-500 °C) and pressure (1-20 bar) will be studied to optimize for minimizing the cracking ratio. The ketonization of methyl stearate has proceeded in a tubular fixed bed reactor containing commercial zirconia (ZrO_2) catalyst. Consequently, the aim of this work is focused to investigate the optimum condition that suppressed the cracking reaction of methyl stearate. The degree of factors was analyzed in term of the relative cracking ratio which provides high activity and high selectivity.

Keywords: ketonization, methyl stearate, zirconia, cracking

Introduction

In recent years, Thailand is the third largest producer of palm oil. Palm oil is important in terms of food storage and as global energy. Thanks to its tropical climate, the country can produce significant amounts of palm oil, as global demand for it increases. Thailand has more than 200,000 small-scale palm oil farmers who make up many of the industry, and it has seen an expansion in areas for palm oil production over the years. That explains why the costs of producing palm oil in Thailand are higher than in Indonesia and Malaysia, where palm oil growing is a big agricultural industry. The main problem is the effort to expand the market fails, the increase of plantation areas may lead to oversupply, and prices will stay low couples with the export markets overseas are rather saturated now. The demand for palm oil will become higher if those sectors want more. Palm oil is essential used in consumer goods such as cosmetics and consumer goods, and in food industries. For biodiesel, it depends on the government strategy on energy. There are not many engines use biodiesel in Thailand so there is not a large amount of demand for palm oil in this sector. Although local output is down while the demand remains unchanged, there resumes being an overstock of palm oil cause an oversupply of biodiesel [1].

The increasing focus on promoting the use of biodiesel more in various applications. Therefore, the transformation of biomass conversion to other valued products was increased continually in industry and academia. Apart from fuels and polymers, another type of petroleum-derived products is waxes [2]. Ketonic decarboxylation is an important way for carboxylic acid upgrading. Currently, the ketonic decarboxylation of carboxylic acids has been studied with the aim to produce fuels from fatty acids. The reaction pathway is explained in the equation below:



Ketonic decarboxylation fits very well as in this reaction of carboxylic acids. It converts two carboxylic acids into ketones forming one carbon-carbon bond and eliminates three oxygen atoms as carbon dioxide and water [3]. In general, the process can be carried out in a continuous flow reactor at temperatures in the range of 350-400 °C, and monoclinic ZrO₂ has been shown as a very suitable catalyst for this reaction [4, 5]. Furthermore, hydrocarbons and shorter ketones were obtained as byproducts when using the esters [2]. There are six fatty acid methyl esters as the chemical composition of biodiesel such as methyl palmitate (C16:0), methyl linoleate (C18:2), methyl oleate (C18:1), methyl stearate (C18:0),

methyl arachidate (C20:0), and methyl behenate (C22:0). Therefore, it is a big challenge to use methyl stearate (C18:0), which one of the esters in Fatty Acid Methyl Esters (FAME) in biodiesel as raw material instead of fatty acids because it not widely uses a high number of hydrocarbon ester for ketonic decarboxylation. Therefore, more research is required to explore its potentials for future industrial [6].

However, also another important concern, cracking reaction is usually occurred as the side reaction that resulting to decrease the selectivity of the desired product. Common ketonic decarboxylation operates at high temperatures (more than 300°C) and can produce significant amounts of by-products such as light fragments formed in several ways such as by cracking of the fatty acid chains or by decarboxylation of the fatty acid. The formation of these by-products restricts the overall selectivity of the desired ketone product. There has so far been a restricted understanding of the factors that affect relatively poor selectivity. In addition, the side reactions that cause the lower selectivity also tend to cause faster catalyst passivation [8].

The aims of this work are to present a study of the ketonic decarboxylation of ester, methyl stearate, in the gas phase over metal oxide catalyst. The effects of temperature and pressure over ZrO₂ catalyst on of methyl stearate were investigated in terms of cracking side reaction. Besides, the catalysts were characterized by various techniques and correlated to the catalytic performance in ketonic decarboxylation.

Experimental

2.1 Catalyst preparation

Commercial zirconia (ZrO₂) was used as catalyst. Firstly, the catalyst in powder form was mixed with redistilled water until thin slurry and stirred for 2 h until homogeneous, then left to age for 16 h at room temperature. The resulted sol was dried in an oven at 110 °C for 24 h. The lumps were crushed and the sieved fractions of 0.40–0.80 mm were calcined at 600 °C for 3 h in air with the ramp rate 10 °C/min.

2.2 Catalyst Characterization

The surface area, pore volume and pore diameter were measured by the Brunauer–Emmet–Teller (BET) method on a Micromeritics ASAP 2020 instrument. The measurements

were performed with nitrogen as adsorbate at liquid nitrogen temperature following the samples pretreatment at 200 °C under vacuum 12 h. Sample of N₂-physisorption was heated and held at 110 °C overnight before analyzing. The elemental distribution on a surface and morphology of the catalysts was investigated with SEM-EDX using Link Isis series 300 program SEM (JEOL model JSM-5800LV). Sample of SEM-EDX was heated at 110 °C overnight before analyzing the surface area of catalyst. The X-ray diffraction (XRD) patterns were performed on X-ray diffractometer Bruker D8 Advance using Cu K_α irradiation at range between 20 ° to 80 ° with a scan speed 0.5 sec/step for ZrO₂ catalyst. X-ray diffractometer (Bruker D8 Advance) using Cu K_α irradiation at range between 1.2 ° to 50 ° with a scan speed 0.5 sec/step for ZrO₂ catalyst. And, IR spectra of ammonia adsorption were recorded with Bruker Vertex-70 FT-IR spectrometer equipped with a Harrick Praying Mantis attachment for diffuse reflectance spectroscopy. About 20–25 mg of sample was placed in a Harrick cell. The sample was heated to 500 °C at a heating rate of 10 °C/min under N₂ gas. Holding the temperature for 1 h under H₂/N₂ gas. Then, the sample was heated to 550 °C at a heating rate of 10 °C/min under N₂ gas. The sample was cooled to 40 °C. After that the sample was saturated with 15% NH₃/He for 30 min. The physisorbed ammonia was desorbed in a nitrogen gas flow about 1 h. The spectra were collected using an MCT detector.

2.3 Catalytic reaction study

Gas phase ketonic decarboxylation reaction was carried out in a tubular fixed-bed continuous flow reactor. Using methyl stearate (≥96%) as substrate and dodecane (>99%) as diluent. The liquid feed, in the case of 10%(w/v) methyl stearate diluted in dodecane, was heated to 50 °C. The 2.50 g of catalyst mixed with silicon carbide was placed in the reactor. The reaction was performed at a temperature range of 400-500°C at 1, 10, and 20 bar. Nitrogen gas was employed as carrier gas at 100 mL/ min, and the reactant was fed at 0.32 mL/min with WHSV of 3.02 h⁻¹ during 30 min of time-on-stream.

The liquid product was analyzed off-line by gas chromatography (GC) equipped with a flame ionization detector (FID) and a DB-1 capillary column (15m x 0.53mm x 0.15um). The temperature of column was initially 45 °C for 5 min after injection, and therefore, the temperature was increased from 45 to 100 °C with a rate of 5 °C/min then held 5 min, from 100 to 200 °C with a rate of 10 °C/min then held 5 min, and from 200 to 350 °C with a rate of 10 °C/min. Therefore, the column temperature was held at 350 °C for 5 min. The temperatures of injector and detector were 350 °C.

Results and Discussion

3.1 ZrO₂ Catalyst

The Brunauer–Emmett–Teller (BET) method was characterized for a surface area of the catalyst. A surface area of 104 m²/g was determined for the fresh ZrO₂ catalyst. Commonly, materials for catalyst supports present high surface area, chemical stability as well as the capability for dispersing metal particles highly over the surface of catalyst [8]. The particles are in uniform spherical shape and size distribution as exhibited by the SEM images shown in Figure 1(a).

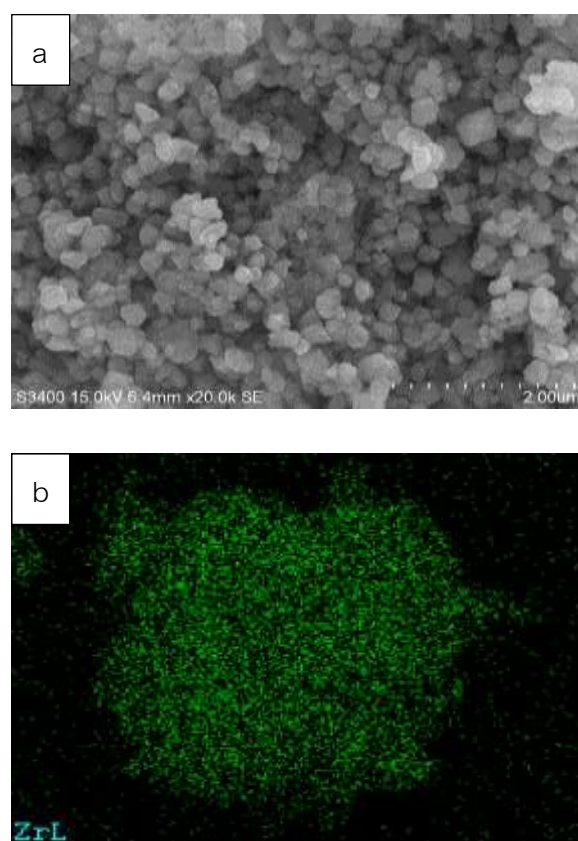


Figure 1. SEM image of ZrO₂ catalyst

(a) SEM micrograph and (b) Zr dispersion from EDX technique.

Table 1 .The elemental analysis of ZrO₂ catalyst was investigated by SEM-EDX technique.

| Element | Wt% | At% |
|---------|-------|-------|
| OK | 27.51 | 68.39 |
| ZrL | 72.49 | 31.61 |

Besides, they confirm good morphology with smaller particles size. It is seen that equiaxial particles, uniform in shape and size, with a relative tendency of agglomeration are observed. According to the SEM-EDX data, SEM image showing the surface microstructure of the pellet of ZrO_2 , and found that Zr metals are well dispersed for catalyst shown in Figure 1(b) and confirmed that this catalyst has atomic percent (At%) of each element in the ratio of Zr:O around 1:2. XRD pattern from the ZrO_2 sample is shown in Figure 2, The reflections correspond to the monoclinic and tetragonal phase of ZrO_2 and the analysis of this material shows only wide peaks varying between 25° and 45° , which are attributed to ZrO_2 in its amorphous state.

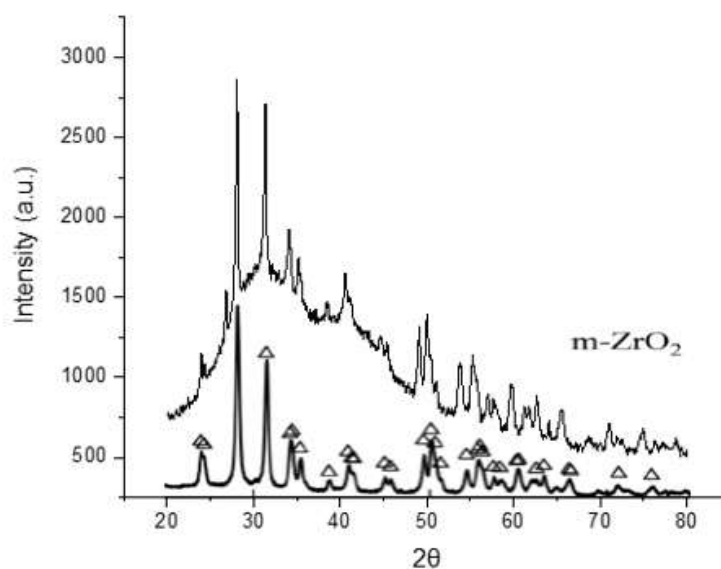


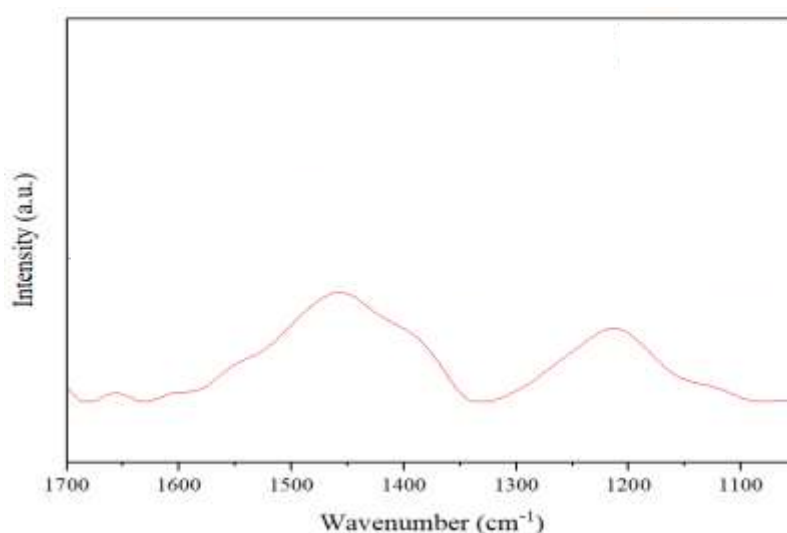
Figure 2. XRD patterns of ZrO_2 catalysts.

The amount of Lewis and Brønsted acid were analyzed by NH_3 -IR, is shown in Table 2 and NH_3 spectra of this catalyst is shown in Figure 3.

Table 2. Surface acidity of ZrO₂ and metal oxide modified ZrO₂ catalysts.

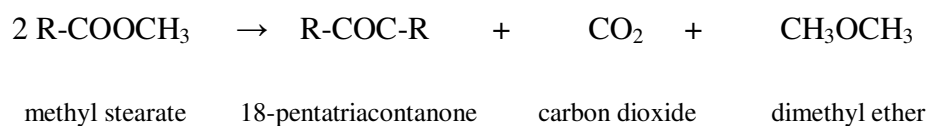
| Wavenumbers (cm ⁻¹) | Area | Total Lewis acid (a.u.) | Total Bronsted acid (a.u.) |
|---------------------------------|---------|-------------------------|----------------------------|
| 1215.5 | 10.5382 | 10.5 | 21.6 |
| 1456.3 | 21.5784 | | |

According to NH₃-IR spectra (**Figure 3**), both peaks at 1215 and 1456 cm⁻¹ were observed on ZrO₂ sample. which could be attributed to Lewis acid and Brønsted acid, respectively [6].

**Figure 3.** In situ FTIR transmission spectra of chemisorbed pyridine on ZrO₂ and metal oxide modified ZrO₂ catalysts.

3.2 Ketonic decarboxylation of methyl stearate over ZrO₂ catalyst

The ketonic decarboxylation reaction was investigated in the temperature range of 400-500°C. The substrate, methyl stearate, was diluted with dodecane for producing long-chain ketones with 31–35 carbon atoms, as described in the equation below:



The mainly C35 ketone product, 18-pentatriacontanone or stearone, was obtained. Thereby, carbon dioxide and dimethyl ether are produced as by-products [3].

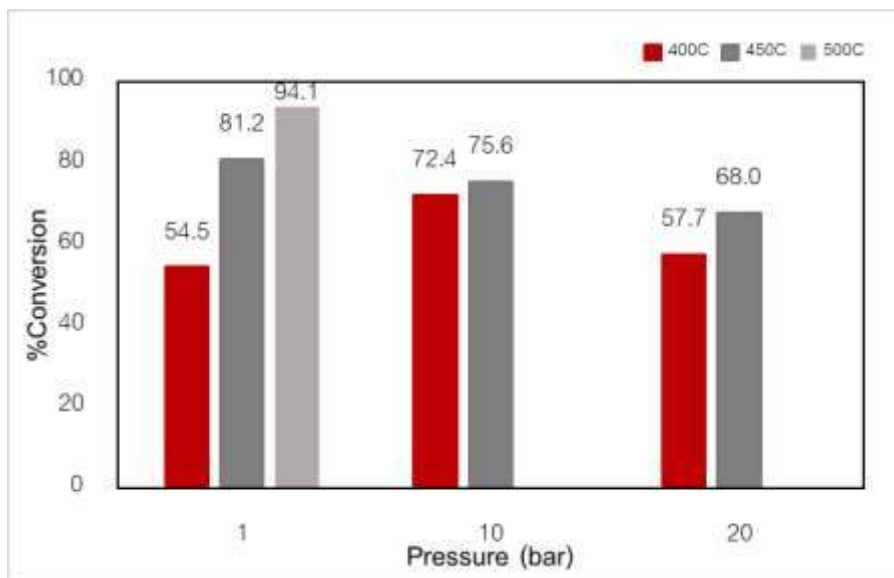


Figure 4. Conversion of methyl stearate in ketonization over ZrO₂ catalyst

Figure 4 shows changes in the conversion of methyl stearate on ZrO₂ catalyst depending on the reaction temperature and pressure. At 1 bar, as the temperature was increased from 400 to 450 °C, conversion on ZrO₂ sharply increased from 54.5 to 81.2%, and it further continued to increase not so considerably to reach a value of 94.1% at 500°C. At 10 bar, as the temperature was increased from 400 to 450°C, conversion on ZrO₂ slightly increased from 72.4 to 75.6% and at 20 bar, as the temperature was increased from 400 to 450°C, conversion on ZrO₂ slightly increased from 57.7 to 68.0%. Thus, from the experimental data, it follows that the conversion of methyl stearate varies with the increased temperature. As can be seen, the temperature only strongly affected the conversion.

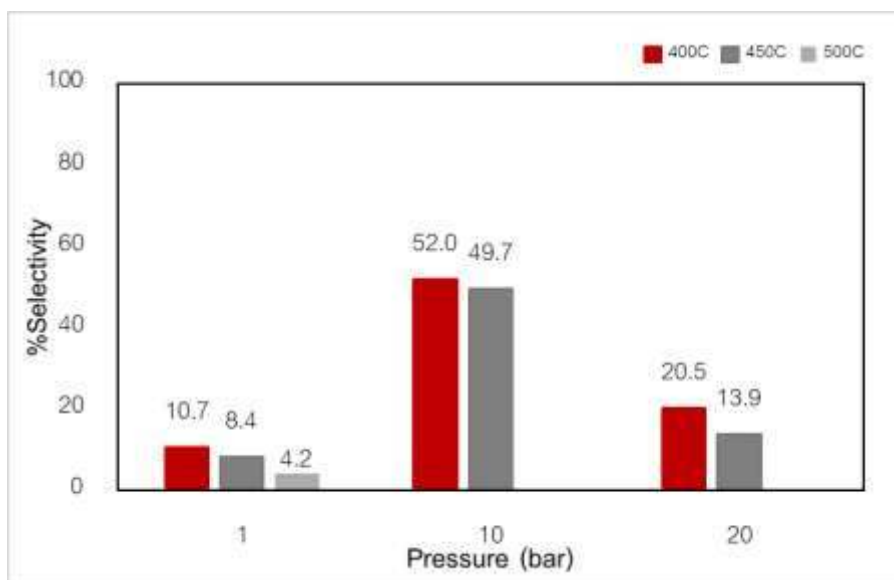


Figure 5. Selectivity of 18-Pentatriacontanone (C35) product in ketonization of methyl stearate over ZrO_2 catalyst

According to Figure 5, the selectivity for 18-Pentatriacontanone (C35) product on this catalyst depending on reaction temperature and pressure. At 1 bar, the selectivity of the desired C35 ketone product decreased from 10.7 to 8.4% and it further continued to decrease to 4.2% at 500°C. At 10 bar, while the temperature was increased from 400 to 450°C, the selectivity was slightly decreased from 52.0 to 49.7% and at 20 bar, as the temperature was increased from 400 to 450 °C, conversion decreased from 20.5 to 13.9%. It follows from the obtained dependences that the optimum temperature and pressure, at which the selectivity of 18-Pentatriacontanone (C35) reached a maximum (52.0%), is 400°C at 10 bar.

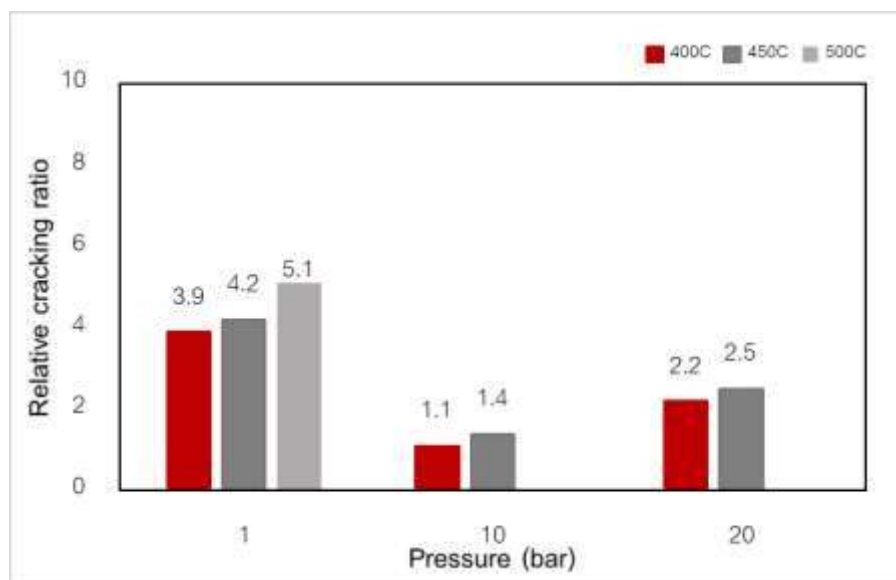


Figure 5. Relative cracking ratio in ketonization of methyl stearate over ZrO_2 catalyst

As indicated by Figure 6, it is likely that the cracking reaction of methyl stearate on ZrO_2 catalyst were explained in term of relative cracking ratio for determining the optimum condition which the lowest relative cracking ratio. About the high relative cracking ratio indicates that this reaction provides a poor performance resulting the amount of desired ketone product less than the occurred cracking product. At this optimum condition will also need high conversion and high selectivity as well. Therefore, from the experimental data, it follows that relative cracking ratio was increased when the temperature and pressure were increased. These values of relative cracking ratio proportionate to temperature more than pressure. At 1 bar, the temperature was increased from 400 to 450 °C but the relative cracking ratio increased from 3.9 to 4.2 and it further continued to increase to 5.1 at 500°C. At 10 bar, while the temperature was increased from 400 to 450°C, the relative cracking ratio was slightly increased from 1.1 to 1.4 and at 20 bar, as the temperature was increased from 400 to 450°C, the relative cracking ratio increased from 2.2 to 2.5. At the optimum temperature and pressure (400 °C, 10 bar) at which the relative cracking ratio reached a minimum of 1.1, is 400°C at 10 bar.

Conclusion

Methyl ester has been considered as starting material for preparing long-chain ketone product. Depending on the temperature and pressure, ketonic decarboxylation of the methyl stearate produced a liquid or semiliquid mixture of ketones and cracking hydrocarbons. Transformation of this long-chain ester over ZrO_2 catalyst at the optimal condition of $400^\circ C$ and 10 bar almost 72.4% conversion and 52.0% selectivity were achieved. As a relative cracking ratio was obtained in 1.1, which has a high content of desired C35 ketone product more than light fragment cracking of hydrocarbons. The high temperature plays a significant role in forming the cracking more than pressure. A loss of selectivity, especially occurring at the higher reaction temperature, is due to a side reaction of cracking.

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Marital status in relation to quality of life of older adults in Bhutan

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Abstract

Objective: To explain the relation between quality of life (QoL) and marital status as well as to identify social needs from emic point of view among the older adults in Bhutan

Method: A mixed method approach - SF36 was applied as the measuring tool for QoL. Approximately 403 older adults aged 60-79 years were purposively selected. In-depth interviews (IDI) were conducted with 22 older adults to explain the socio-cultural context of the phenomenon.

The combination between quantitative and qualitative approaches, using SF-36 and in-depth interviews were performed with 403 and 22 older adults in Bhutan, respectively.

Result: The research found that older adults have low QoL as evidenced by mean score of 47.8. In comparison between marital status and 8 domains, widowed showed low QoL. The QoL of a single person is shown as an excellent in physical health, followed by married, and widowed in male whereas female had worse QoL in all domains of physical health in relation with marital status. Male older adults had a better life in social and emotional components whereas female who are being married and widowed are at low scores of mental health. The person who lost their spouses are most suffered when compare to the other groups. In case of single and divorce; fear of death, loss of family ties, low social support, loneliness, and childlessness means refer to life insecurity. Thinking and planning about suicide was also mentioned, especially the older adults who lost their spouses and living alone. Thus, family and social supports are in need to be developed, managed, and provided.

Keywords: Quality of Life, SF-36, Older Adult, Bhutan

Introduction

The human longevity has risen because of advancement in the health care and taking measures towards controlling of communicable diseases. Consequently, the older adult's population proportion is increasing all over the world. (Ghasemi, Keshavarz Mohammadi, Mohammadi Shahboulaghi, & Ramezankhani, 2017). The ratio of elderly population over 60 years in every country is increasing as same like any other age categories (WHO, 2015). The older adults population proportion is growing faster due to decrease in fertility rate and increase in life expectancy. The life expectancy in 1960s was about 34.53 years and at present is about 70.20 years in Bhutan (NSB, 2016) and older adults 65 years and over will at least have one communicable disease, consequently required health care attention than other population in the society (August & Sorkin, 2010; Seedsman, 2007). Additionally, family relationships, social interaction, loss of loved one, poverty, isolation and loneliness are the common social issues (Rasel & Ardalan, 2007).

Many researchers from different areas of specialty tried to explain how marital status and health are associated to each other (Berkson, 1962) and it has been recognized as one of the field of interest (Barrett, 1999). In addition, research studies have revealed that individual being married have better health status (Hu & Goldman, 1990; Kisker & Goldman, 1987; Livi-Bacci, 1984; Rahman, 1993; Zick & Smith, 1991) and in comparison to single, living together individual have low mortality rate, morbidity rate and mental illness (Berkson, 1962; Goldman, Korenman, & Weinstein, 1995; Gove, 1972; Kobrin & Hendershot, 1977). The highest level of poor health status was found in individual who are divorced and separated followed by widowed and compared to single, married people suffer less psychological distress and reported better life satisfaction (Barrett, 1999; Gore & Mangione, 1983; Gove, Hughes, & Style, 1983; Ross, 1995; Ross, Mirowsky, & Goldstein, 1990). The connection between marital status and QoL has been a remarkable area of research which need appropriate intervention to solve these issues to maintain a good QoL among older adults.

Bhutan is a developing country in south Asia; the country is experiencing the growing number of elderly population. The social protection for an elderly person is mostly the responsibility of family members and the community. This informal care and support based on filial piety – a virtue of respect for ones parents, elders and ancestors.

According to population and housing census of Bhutan (2017), the country profile on marital status of the total 54,704 elderly population aged between 60 – 79 years are 1) 2703

elderly persons were never married, 2) 42,578 elderly persons were married 3) 1770 elderly persons were divorced, and 4) 7639 elderly persons were widowed and 5) 14 elderly persons did not report their marital status. A total of 1728 of elderly males and 795 of elderly females were single, while the total of male elderly people who were divorced was 515 and elderly women divorced was 862 between 60-79 years (NSB, 2017).

The district profile on marital status of the total 3330 elderly population both sex– 1) never married - 237, 2) married - 2476, 3) divorced – 189 and 4) widowed – 488. The marital status has significant implications for health care, as the association between marital status and mortality is well recognized. However, many research studies around the globe focused on association of marital status and health, very little is known in Bhutanese context. Therefore, the goal of this study explored the relation between marital status and QoL among elderly people from the rural communities of Paro district of Bhutan.

Materials and Methods

This combination between quantitative and qualitative approaches was performed in four villages of Paro district including Naja, Dogar, Shaba and Lungnyi. The Bhutanese older adults aged 60-79, both males and females, were invited to participate in this study.

Quantitative study: The total of 403 cases was selected from Paro district following convenience sampling. There were four main important criteria included (1) age 60-79, unlimited sex (2) be able to communicate (3) non-cognitive symptom during the time of data collection and (4) voluntary participation. To define quality of life of older adults, 30-45 minutes of face to face interviews were conducted at the respondent's house using Short Form Survey (SF-36). SF-36 covers eight domains and contain 36 items of health related QoL, i.e. Physical Functioning (PF-10 items), Role Physical (RF-4 items), Bodily Pain (BP-2 items), General Health (GH-5 items), Vitality (VT-4 items), Role Emotion (RM-3 items), Social Functioning (Sf-2 items), and Mental Health (MH5 items). The reliability estimated using Cronbach α coefficient was 0.70. Socio-demographic information was also recorded by close-ended questions. Due to age limitation, illiteracy, and vision impairment, the questions were asked and their answers were noted. All data was computed and analyzed using the Statistical Package for Social Sciences (SPSS) version 18. Socio-demography was presented by descriptive statistics including percentages, mean, and standard deviation. The comparisons of QoL among groups according to socio-demographic characteristics were

performed by independent t-test. While the marital status in relation to QoL were tested by Anova. For all tests, significance level was established at 0.05.

Qualitative study: After the survey was done, in-depth interviews were followed. The 403 older adults were asked about (1) what QoL means for you? (2) What's your problem nowadays? (4) What do you want to increase your QoL? They were freely to answer from their experiences and view's points. Their explanations were recorded and noted, then translated into text. Content analysis was applied as the main tool for data conclusion. In this paper, the 22 cases which statistically significant from the quantitative test, were purposively selected as the supplementary information to support the findings from quantitative part. This research protocol was approved by Research Ethics Board of Health (REBH), Ministry of Health, Bhutan (Ref. No. REBH/Approval/2018/098).

Results

1. Respondent's characteristics

Table 1 summarizes the socio-demographic characteristics of the study population. The study involved 403 elderly respondents – 170 male and 233 female with the age range between 60 – 79 years of age. Among the age group, majority of them belong to the age group of 60 – 69 years (58.8%). In the gender, most of the sample were women (57.8%) and married 286 (71.0%) with the highest level of no schooling 367 (91.1%) followed by primary education 20 (5.0%).

2. Findings from quantitative study

The overall QoL of older adults was low as evidenced by the mean score of 47.8. Getting older the quality of life is lower. Male has higher QOL; the score in physical QoL is 10 score higher whereas the mental QoL only four score different. However, the means score of mental in both groups are higher than 50 percent. Marital status among elderly in relation to 8 domains SF-36 QoL was presented in figure 1. Among the marital status in physical functioning widowed showed a worse QoL though single, married, and divorced were also below the average mean score. In the bodily pain domain divorced and widowed scored a mean score of 49.6 and 47.2 respectively. The elderly who are married, divorced, and widowed had the low score in role physical domain as evidenced by mean score which was below the average. In relation with general health and marital status, the elderly scored showed worse mean score in this domain. The marital status categories strongly affect the

vitality of the elderly as evidenced by mean score which was below the average score and marital status has no effect on social functioning, role emotion, and mental health.

Table 1: Socio-demographic characteristics of the study population (n=403)

| | N | Overall QoL | | Physical Component | | Mental Component | |
|--------------------------|-----|------------------|---------|--------------------|---------|------------------|---------|
| | | Mean (SD) | P value | Mean (SD) | P value | Mean (SD) | P value |
| Age group (years) | | | | | | | |
| 60 – 69 | 237 | 50.86 (18.69) | <0.001 | 46.08 (21.81) | | 55.64 (18.08) | 0.01 |
| 70 - 79 | 166 | 43.53 (21.39) | | 36.52 (23.57) | <0.001 | 50.55 (21.26) | |
| Gender | | | | | | | |
| Male | 170 | 51.79 (21.20) | 0.001 | 47.58 (23.83) | | 55.10 (20.48) | 0.032 |
| Female | 233 | 44.96 (18.87) | | 38.17 (21.60) | <0.001 | 51.76 (18.75) | |
| Marital status | | | | | | | |
| Never married | 21 | 52.48 (22.13) | | 48.09 (24.88) | | 56.87 (21.47) | |
| Married | 286 | 49.09 (19.71) | | 43.48 (22.60) | | 54.71 (19.32) | |
| Divorced | 21 | 45.99 (20.05) | 0.043 | 39.61 (23.05) | 0.048 | 52.38 (19.51) | 0.84 |
| Widowed | 75 | 42.29 (20.58) | | 36.06 (23.30) | | 48.52 (19.62) | |
| Education level | | | | | | | |
| No schooling | 367 | 47.31 (20.07) | | 41.34 (22.71) | | 53.28 (19.69) | |
| Primary | 20 | 45.49 (19.51) | | 39.91 (22.63) | | 51.08 (19.28) | |
| Secondary | 14 | 62.61 (18.79) | 0.02 | 62.94 (22.97) | 0.002 | 62.28 (16.80) | 0.255 |
| Tertiary | 2 | 66.28 (8.97) | | 65.94 (8.40) | | 66.62 (9.54) | |

Figure 1 Marital status among elderly in relation to 8 domains SF-36 QoL

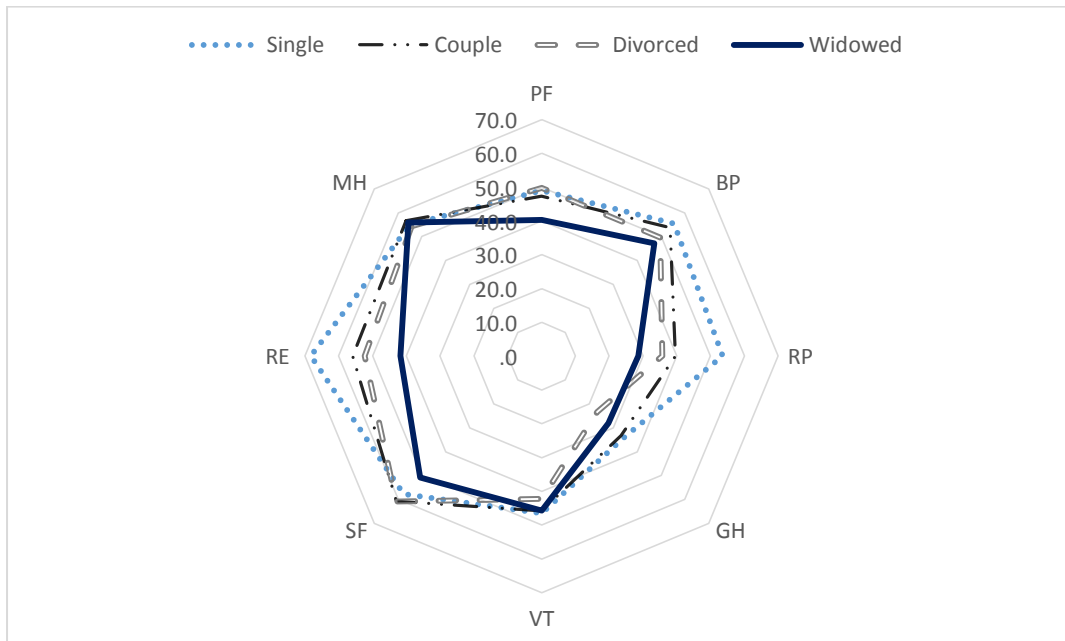


Figure 2 physical health cross-classified by age group and gender in different marital status

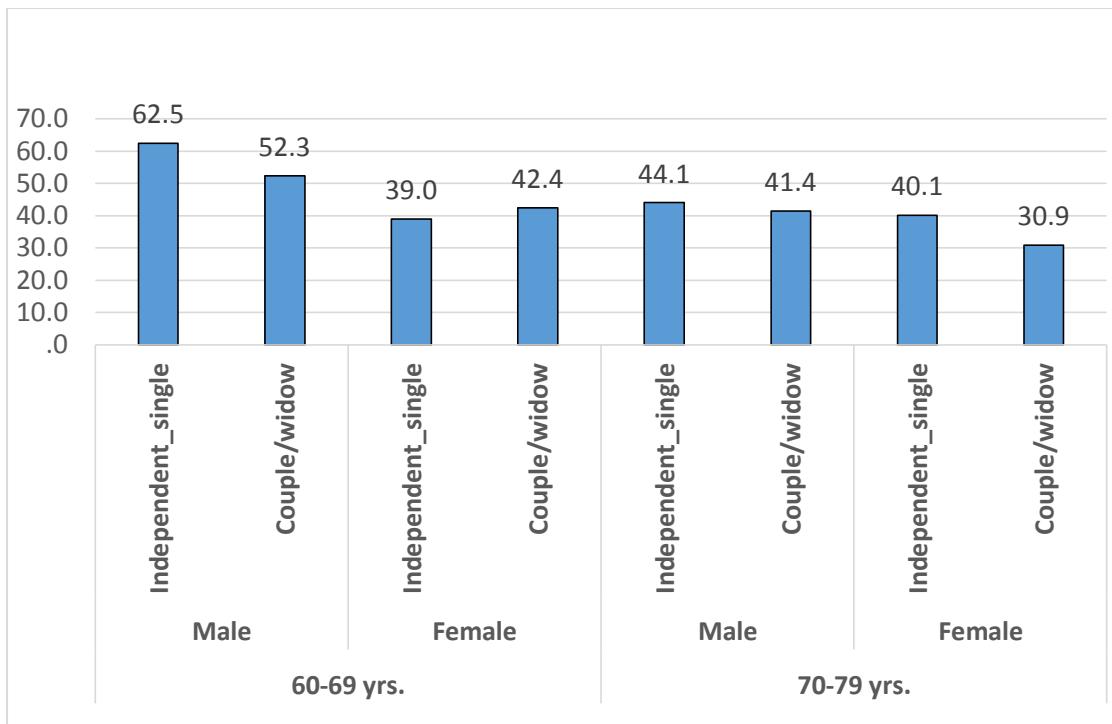
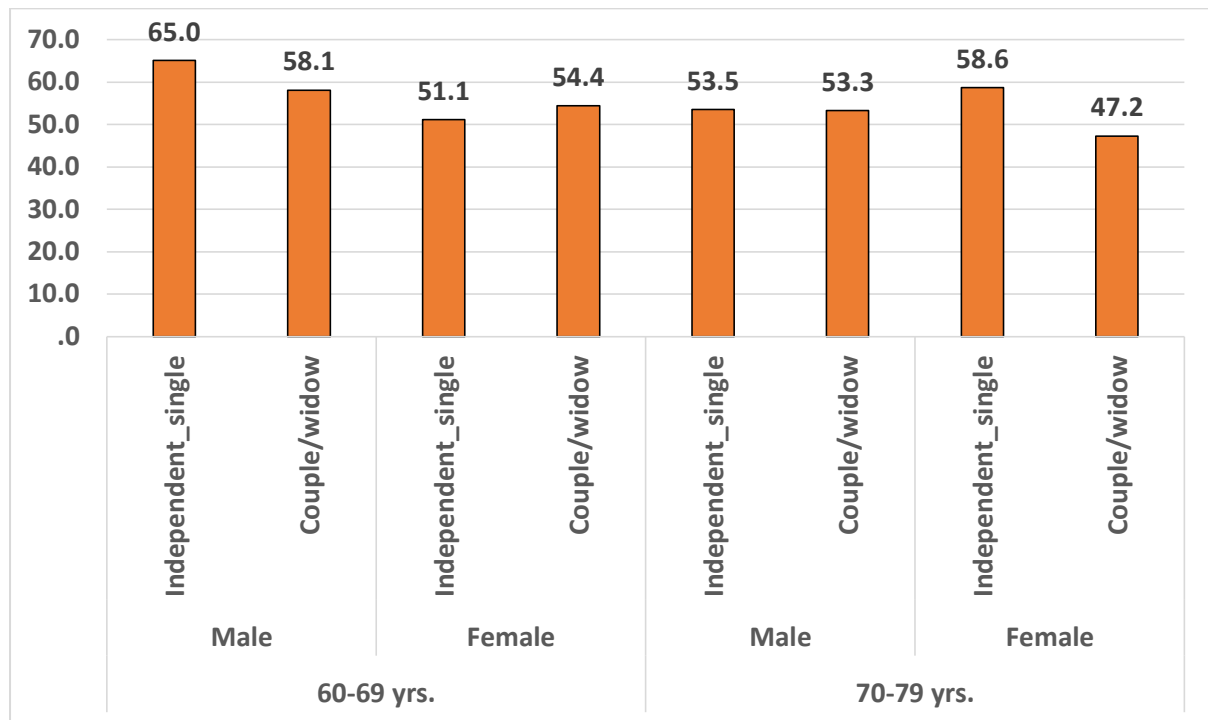


Figure 2 reflects physical health between gender and age group.in different marital status. Elderly single and married male had higher physical QOL in young aging (60-69

years) but the physical QOL of independent group is a bit lower in female. However, in older age 70-79 years there is no different Physical QOL between marital status among male and it shows reverse in female. Anyway, female who lives with spouse or lost them have very low physical QOL.

Consideration on the result of mental health, the mental QOL in aging male are higher than the average (50 percent). It is also found that independent male in younger aging has higher mental QOL score whereas in older age group single and the other have similar score. The different of mental QOL in female shows no different in younger aging but in older aging the widow/couple group has the poorest score (Figure 3).

Figure 3 mental health cross-classified by age group and gender in different marital status



3. Findings from qualitative study

The finding obviously confirmed that female older adults, especially the middle-old (70-79 years old) who spent their life without husband, either widow or divorce, are most suffer in daily living than the young one and male counterpart. In case of single and divorce; fear of death, loss of family ties, low social support, loneliness, and childlessness means refer to life insecurity and impact on physical and mental conditions. Thinking and planning about

suicide was also mentioned, especially the older adults who live alone. Thus, family and social supports are in need to be developed, managed, and provided.

“From my observation that the needs and respect for elderly people get less priority and sometime I feel that I am neglected and this has led me to a perception of insecurity and become more depressive.” (Female, 67 years, widowed).

“Physical pain is the bad thing, it makes me feel unpleasant and it emotionally and physically disturbs me.” (Female, 72 years, widowed).

“I wish to be able to do stuff for myself without having to ask somebody for helping me all the time.” (Female, 75 years, widowed).

“My husband pass away few years back, since then I have to take the full responsibilities of my day to day work in the village which really burdens me due to physical condition and I really miss his absence though it is of no use of thinking the past history.” (Female, 67 years, widowed).

“I only have a son and he is settled in different community which is far from here. He never asks about my health condition and not concerned about me. So there is no alternative, I have to struggle myself for everything. I will die alone in this small house.” (Female, 73 years, widowed).

“My children are living in the different parts of the country and I am all alone, my partner and me separated. Now my fear is that my children will not be able to attend when I am sick and even death.”(Female, 71 years, divorced).

“I suffered a lot and feel lonely, sometimes I think of attempting suicide.” (Female, 70 years, divorced).

“When you start having issues like fight, feeling jealous, pain, hurting and stress regarding the marriage, you start to think where is the marriage quality of people, instead pop up with depression and suicide factor comes in relation with the marriage.” (Female, 73 years, divorced).

Discussion

In this present study, the role of marital status in relation to QoL in the light of aging has been explored and analyzed, the results show there was association between marital status

and QoL. However, the effects of marital status differ across the age group and gender. While many studies reported that married elderly are healthier and had greater QoL than single, divorced, and widowed. (Gove et al., 1983; Kahneman, Diener, & Schwarz, 1999; Peters & Liefbroer, 1997) and also married elderly people enjoy social support and intimacy which help them to prevent suffer from social isolation and loneliness (Kahneman et al., 1999). In contrast, the result shows that, the married elderly male in age group 70-79 had low QoL and reason it may be depend upon the quality of marriage life among this age group of the older adults.

In addition, the elderly who are without partner mostly do not share their internal feeling, day to day life experiences, and their sentiments. In the present study, widowed reported worse QoL because may be due to negative feeling, helplessness, loneliness, sadness, and anxiety. Therefore, past research study suggested that, these negative feelings had strong association with depression which need to be taken as a serious issues (Luanaigh & Lawlor, 2008). Furthermore, widowed female attempt to suicide increases due to loneliness in association with loss of their husband (Lebret, Perret- Vaille, Mulliez, Gerbaud, & Jalenques, 2006) and widows have greater declines in social functioning and more deterioration in physical health.

The finding of this research work shows elderly single, married, widowed, and divorced male have better mental health in both the age group as the mean score shows above the average score. It is also found that married elderly had good mental health status; widowed male had a worse mental health, and female who are married and widowed had the low mental health as compared to divorced male (Gove et al., 1983). Widow and married women are more emotional when getting older. Therefore, the need of health personnel in motivating the young people in community to understand and help to solve this problem. In the research also reveals formation regarding education level from the elderly respondents. However, it showed that many of the elderly respondents had no formal education (91.1%). Therefore, education level was not taken into consideration.

According to respondents reported about services for the older adults were not available in terms of appropriate age-old care in the community therefore the institutional care (community based) are necessary. In addition, the respondents are most happy with family life especially with their children. Research in many cultural settings shows that older adults prefer to be in their own homes and communities. Lack of social support causes loneliness which results in poor medical outcomes. Social network of the family and friends

buffer stress and promote well-being thus reducing loneliness. Therefore, social support of family is also important to improve the QoL of older adults.

Suggestions

Strong political commitment and social action are imperative for the effective implementation of customized policy at the grass root level. Social measures like developing a culture wherein children voluntarily take the responsibility of looking after their aged parents. Regulatory mechanisms, which make it obligatory for the members of society to look after their elder parents. Development of a health insurance scheme to cover their health-care needs. Advocating the construction of elderly-friendly houses/roads/staircases and training and re-training of medical and paramedical staff to effectively understand the special health needs of the elderly. Development of gerontology units including multidisciplinary team such as geriatrician, gerontologist, social gerontology, and gerontology.

Conclusion

This study indicates that the marital status and social needs are strongly associated with QoL among older adults. The elderly widowed and married female had poor QoL than male who are single and independent. In case of elderly female, emotional and feeling of insecurity are also associated with low QoL. The results imply that health policy makers should consider an urgent interventional program among elderly at present stage of demographic transition with emphasis on this group of the society.

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Linear Structural Model of City Marketing in Mongolia

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Abstract

In the 21st century, urbanization has intensified worldwide, with the number and quality of cities and their populations growing rapidly. Currently, almost 55% of the world's population lives in urban areas and according to The 2018 Revision of the World Urbanization Prospects by UN estimated that by 2050 it will grow to 68%. The city is the center of civilization and social development. Urbanization is intensive and tourism industry is expanding as cities are looking for their own way to develop, although focusing on the image is becoming increasingly important, so the countries are building their own city brand. If the city is good, which means this city with the convenience for residents and the attractions for tourists and entrepreneurs, and has positive influence on the satisfaction for citizens and visitors. The city is a comprehensive center for education, innovation, politics, technological advance, social service, and financial that provides favorable conditions for human development (Sandui, 2015). Local migration, technology advancements including that required a lot of factors from the competitiveness of cities, such as transportation, job creation, cultures, tourists' attractions, etc (Kotler, 2002). Since the 19th century governments had begun an experiment to city marketing (Ward, 1998), but over the past few decades, major cities had used marketing more widely in cities so that created competition among investors, tourists, and residents (Kotler, Asplund, Rein, & Heider, 1999). This study aims to establish a LISREL mode for city marketing in Mongolia and determine what factors influence on tourists' satisfaction during visiting the city in Mongolia. The data had been collected from domestic and foreign tourists who were visit the city and the hypotheses were tested by applying LISREL8.8 with covariance matrix. The results depicted only one hypothesis was supported and others were rejected. City infrastructure positively impacts on tourists' satisfaction was supported. Other independent variables were city reputation, attraction, workforce, economy, street marketing, and destination marketing without significant influence on tourists' satisfaction.

Keywords: city reputation; city infrastructure; city attraction; city workforce; city economy; street marketing; destination marketing; tourist satisfaction

1. Introduction

In our country, even though has "nomadic" civilization, but this global trend creating an urban civilization since the mid-20th century in Mongolia. Almost 50% of Mongolia's population lives in the capital city of Ulaanbaatar, that compared with other cities who have hundreds of year of history in around the world, it is a relatively young city cause has a number of criticisms such as quality of service and infrastructure. city is civilization center for education, innovation, politics, economy, technological advancement, and social development that provide favorable conditions for human development. (Sandui, 2015). Our country has low urban development and infrastructure, which is diminishing both of the quality of life and the competitiveness of the city's economy. Therefore, urban marketing and infrastructure will help a city become the most comfortable place for residents and tourists, attract new investment, enhance the quality and competitiveness of the territory. Tourism had provided one of the fastest-growing socio-economic sectors over the last few decades, with significant impact on urban development. Nowadays, tourism is not just for entertainment and leisure, which has a positive impact on local development, especially in urban development. In the last 2018, 598 thousand tourists visited in our country, there were 92 percent of tourists came to the capital city of Ulaanbaatar also passed through (NSO).

Research purpose and objective

In Mongolia, the number of tourists increasing year by year, however in the tourism sector service quality and accessibility are still low which may have negatively affected on the satisfaction of domestic and foreign tourists visiting the capital city of Ulaanbaatar. Tourism is becoming more sustainable, accessible and accountable in each direction day by day, because that tourism has a lot of influence on creating new changes in the urban area.

Building a positive and innovative marketing approach to tourists is a key factor of tourism development and also urban development. It can help us to gain competitive advantages to compete with major cities. Although, there are many literatures had studied urban tourism development, but very few studies for urban marketing in Mongolia. According to the motive research background, this study aimed to determine what factors influence on the tourists' satisfaction of city marketing. Thus, this study investigates tourists who had visited Ulaanbaatar and in order to develop new products and services for tourists demand and need. This study also provided useful information for strategic of urban marketing.

2. Literature Review

Urban Marketing

The definition of urban marketing is the creation, dissemination, and activation of the city by organizing targeted activities to attract tourists, residents, and businesses. Urban marketing is also frequently mentioned as one of the reasons for hosting a particular event in a city. And the city image effects on citizens' living, investing and travel decisions (Kotler, Gertner, 2002). Also, it makes a great image for residents and foreign partners to connect with all the information from localities. The concept of image is that the common belief of the local community; mostly geographical location, culture, history, art, celebrity, and other factors influence the image creation. Today, countries are building their own city brands that aims to attract tourists and businesses. In particular, the tourism industry has developing currency revenue and employment creation, as one of the leading sector of economy, while to maintain different image building strategies for specific target groups by using strategic image management in order to attract tourists, expand the market. For example, to pursue a different strategy for tourists, residents, and entrepreneurs, which would help to allow those groups to make positive perceptions about the city.

Many of marketing literatures had emphasized on promoting urban development and increased competitiveness, there are number of factors to consider that aimed to improve urban development such as housing area, construction, environment, and employment, which is responsible for ensuring mutual cooperation for all the parts (Koster, A. 1994). In this sector, the examples of the cities have more implements of urban marketing such as the US and some countries in Europe; which is New York, Paris, Barcelona, Vienna, Berlin and Amsterdam such that they continue to develop their own different way. According to Jan van der Meer (1990), urban marketing is defined to suggests, that oriented activities to coordinate between demand and urban activities, for residents, local companies, tourists and other guests. Also, it is important to focus on creating a good image that satisfy with customer satisfaction as suitable on target groups' needs.

According to Braun (2008) study, The several basic strategies are most used: 1. City image, creates a positive city image for investors and tourists, which aimed to create and increase the city's reputation. 2. Attractiveness, intends to enhance interest, and increase tourists' attraction, 3. Infrastructure, which is the basis of the city's construction, that often refers to electricity, water, telecommunications, transportation, security, airport, hotel, stadiums, and

road etc.. Based on the above, the following factors could influence on consumers' satisfaction of urban marketing: city reputation, city attractiveness, city infrastructure, city workforce, city economy, street, and destination.

Tourist Satisfaction

For tourism, tourists' satisfaction is the expectation of a given product and service, also the reality of after journey or conclusion of the experience which generated from the predictions (Baker and Crompton, 2000). Tourists satisfaction is based on a theory of belief, consider that expectation compare with the perceptions (Kotler and Keller, 2007). History, culture, and climate are important to the loyalty of the visitors and their positive impressions, but also hotel and food as terms of services are considered to be more important (Rajesh, 2013 & Coban, 2012). In the other hand, it would help to support the competitiveness of entrepreneurs in the tourism industry (Kozak & Rimmington. 2000). According to Hunt, (1977), satisfaction was not only gained a good experience, as well as evaluation at least as good as it should be. Therefore, customers more satisfied with the situation that if their experience is better than their expectations (Yuksel & Yuksel, 2001).

Hypotheses

Preliminary assessment of service quality is uncertain, so the reputation is executed an important role for the service market (Wang, Lo, & Hui, 2003). Most tourists care about the reputation of the destination, which reduces the risk of having non-interest (Morgan, Pritchard, & Pride 2011). In marketing literatures, the company's reputation and customer satisfaction are with a strong impact on each other (Chang, 2013; Walsh, 2006). Based on above literatures, this study proposed the following hypothesis:

H₁: City reputation positively impacts on tourists' satisfaction.

Susskind, Alex, & Carl (2000) argued that infrastructure is the most important influence on tourists' satisfaction. Malthouse, Oakley, Calder, & Iacobucci (2004), tourists have great satisfaction for comfortable living condition, outside activities, and attractive buildings, and they would like to share their experience with others (Moscardo, 2017). So the following hypothesis was suggested:

H₂: City infrastructure positively impacts on tourists' satisfaction.

The positive psychological effects of tourist are dependent on the location and function of the land (Prayag & Ryan, 2012; Ramkissoon, Weiler, David, 2013 and Veasna, Wu, & Huang, 2013). According to Yuksel & Yuksel (2010), the people of the area, services, and atmosphere of the community help create a positive sense of identity for the individual. Based on above research, this study proposed the following hypothesis:

H₃: City attraction positively impacts on tourists' satisfaction.

Good service quality is important to customer satisfaction and loyalty. (Lacobucci & Ostrom 1996). One of the key factors for determining visitor satisfaction is the relationship between workers and tourists (Hunt, 1977). So the following hypothesis was suggested:

H₄: Workforce of city positively impacts on tourists' satisfaction.

To restore the urban economy contributed by the government, increasing the demand of historical and cultural monuments would influence on the visitors' satisfaction (Tulyeu, 2012). Tourists' satisfaction influenced by urban GDP and the overall economic level of the city, according to Zhou, Liu, and Tang (2018). So the following hypothesis was suggested:

H₅: City economic positively impacts on the tourists' satisfaction.

Sandybayev (2018), pointed out that the types of street festivals have positive effects on satisfaction, as well as the positive aspects of promoting activities that have a positive impact on the behavior and satisfaction of the guests. Therefore, the following hypothesis was proposed:

H₆: Street Marketing has positively impacts on tourists' satisfaction.

Truong et al. (2017), depicted the special features of destination is a positive influence on visitor satisfaction, also according to a survey by foreign tourists' satisfaction in Ulaanbaatar, which saving the tourists time and the destination signs are clear, that positively affected on tourists' satisfaction. So the following hypothesis was suggested:

H₇: Destination Marketing has positively impacts on tourists' satisfaction.

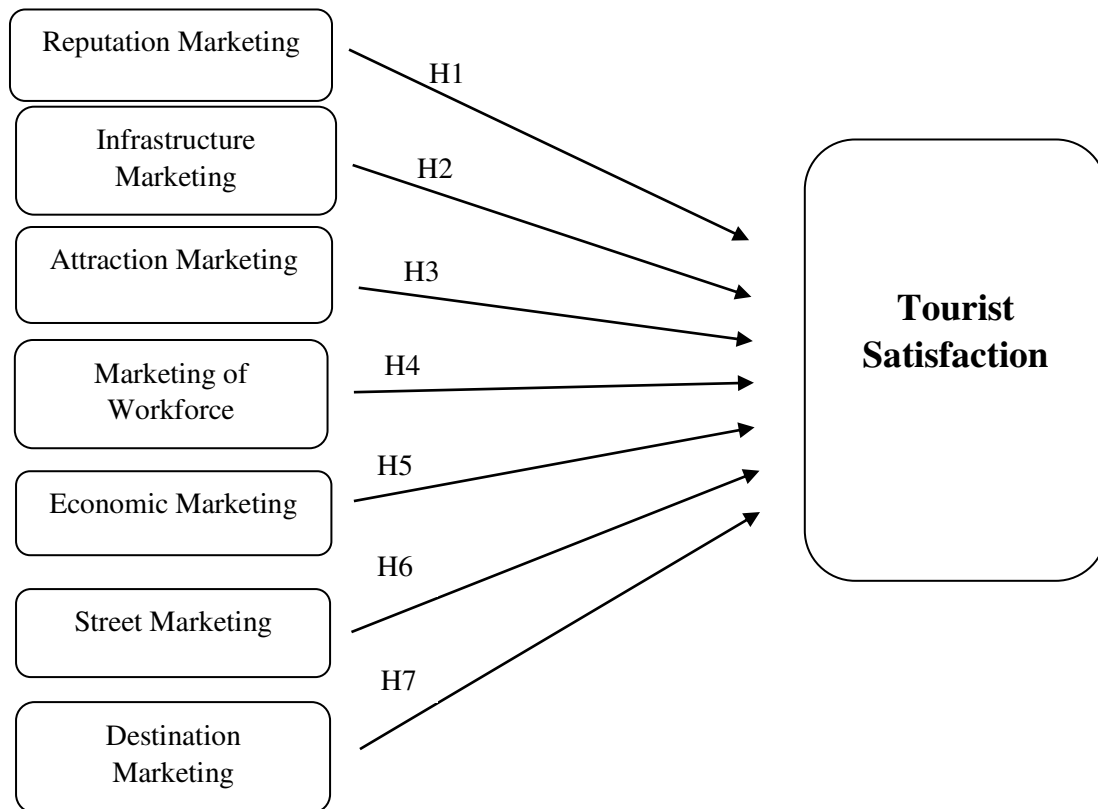


Figure 2.1 Research model

3. Methodology

This study aimed to understand which factors of city marketing influence on tourists' satisfaction.

Questionnaire

In this study, the data was collected from domestic and foreign tourists who visited in Ulaanbaatar through a number of companies offering domestic travel in the tourism industry in Mongolia. The survey questionnaire were obtained 225 samples from domestic and foreign tourists, which among 208 responses were valid for further analysis. The questionnaire had developed in two languages, English and Mongolian, which consists of 3 parts. The first part of the questionnaire was contained the city marketing, measured in seven factors with 66 questions, which are city reputation, city infrastructure, city attraction, city workforce, city economy, street, and destinations, each question measured on five-point Likert scales, ranging from 1="strongly disagree", to 5="strongly agree". The second part measured the satisfaction of tourists with nine multiple-choice questions. The last part is included demographic characteristics of participants which are gender, age, education, and income.

The questionnaire was distributed through the e-mail and social networking website, utilized design by a Google docs survey form. Table 3.1 indicated the questions as variables in this study and their literature resources.

Method

In this study, LISREL (Linear Structural Relation) is the basis of the theoretical model, to combined with Statistica 10.0 and Excel 2013 for processing the data, as follows; first, we analyzed the demographic data and tourist satisfaction data of the survey by Statistica 10.0 software and to compile the result in form of frequency and percentages. This study we used Microsoft Excel for creating the covariance matrix, that helps to estimate the boundary of the factors in the model. Then we, to test the hypothesis used CFA in LISREL 8.8.

Confirmatory Factor Analysis

CFA is a powerful statistical technique used to analyze the credibility of a relationship between observed variables and their latent variables exists. LISREL (Linear Structural Relationships) is suitable for complex, multi-level data such as providing influential and the estimated mean value among various group. LISREL provides many different of tools for structural equation modeling to determine how to conform the data.

4. Result

Demographic data

The demographic characteristics of the respondents were presented by a total of 208 participants, which comprised of 59 (28,3%) domestic tourist and 149 (71,7%) foreign tourist. Most of the survey respondents were female which are 51,4% (107 respondents), and 48,5% (101 respondents) were male. In the age group 39.4% respondents were between 26-35 years old, 37% aged between 18-25 years old, 8.1% age from 46-55 years old, age between 36-45 years old 5.7%. Age group under 18 and over 55 years old respondents were 4.3%. The number of respondents who had income 29.8% with 750,000-1,000,000 MNT and higher than 1.000.000 MNT and 30.7% (64) of respondents were students. (See table 4.1)

Table 4.1 Descriptive statistics (N=208)

| Characteristics | Categories | Frequency | Percentage % |
|---|-----------------------|-----------|--------------|
| Nationality | Domestic tourists | 59 | 28.3 |
| | Foreign tourists | 149 | 71.7 |
| Age | Under 18 | 9 | 4.3 |
| | 18-25 | 77 | 37.01 |
| | 26-35 | 82 | 39.4 |
| | 36-45 | 12 | 5.7 |
| | 46-55 | 17 | 8.1 |
| | Over 55 | 9 | 4.3 |
| Gender | Male | 101 | 48.5 |
| | Female | 107 | 51.4 |
| Occupation | Student | 64 | 30.7 |
| | Service sector | 23 | 11.05 |
| | Financial sector | 35 | 16.8 |
| | Manufacturing sector | 23 | 11.05 |
| | Public officials | 24 | 11.5 |
| | Government officials | 9 | 4.3 |
| | others | 30 | 14.3 |
| Income (MNT) | Less than 250,000 | 10 | 4.8 |
| | 250,001- 500,000 | 15 | 7.2 |
| | 500,001- 750,000 | 59 | 28.3 |
| | 750,001- 1,000,000 | 62 | 29.8 |
| | Higher than 1,000,000 | 62 | 29.8 |
| Did you think UB is the ethical city for tourists satisfy? (QD) | Yes | 153 | 73.5 |
| | No | 27 | 12.9 |
| | Maybe | 28 | 13.4 |

Table 4.2 Covariance matrix of hypothesis model

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------------------|-------|-------|-------|--------|-------|-------|-------|-------|
| 1. City Reputation | 0.197 | | | | | | | |
| 2. City Infrastructure | 0.051 | 0.087 | | | | | | |
| 3. City Attraction | 0.020 | 0.037 | 0.066 | | | | | |
| 4. City Workforce | 0.049 | 0.062 | 0.048 | 0.130 | | | | |
| 5. City Economy | 0.017 | 0.048 | 0.044 | 0.064 | 0.093 | | | |
| 6. Street Marketing | 0.032 | 0.048 | 0.038 | 0.078 | 0.056 | 0.118 | | |
| 7. Destination Marketing | 0.006 | 0.017 | 0.031 | 0.019 | 0.040 | 0.052 | 0.137 | |
| 8. Satisfaction | 0.015 | 0.052 | 0.035 | -0.003 | 0.017 | 0.010 | 0.023 | 1.615 |

Table 4.2 pointed out the covariance matrix which was calculated by Excel 2013. Covariance Matrix describe the linear covariance between two variables. A positive value represents a trend of the linear relationship while the negative figure displays the decreasing of the linear relationship.

Confirmatory factor analysis testing

| Table | Fit measures | Statistics measurement target | Values | 4.3 |
|-------|--------------|-------------------------------|--------|-----|
| | χ^2 | smaller grades is better | 0.00 | |
| | p-value | greater than 0.05 | 1.0 | |
| | RMSEA | <0.08 | 0.000 | |

Goodness of fit statistics measurement

The Weighted Least Squares Chi-Square and RMSEA were significant ($X^2 = 0.00$, RMSEA = 0.000, p = 1.00). The data were collected from the customers of the tourism company in Ulaanbaatar Mongolia. By utilizing LISREL to test the good of fit of the model, this study tested the hypotheses at the same time. RMSEA is the residual measurement for the model and the less RMSEA means the smaller error and the better good of fit for the model. The results depicted the model is perfect good of fit with ($X^2 = 0.00$, RMSEA = 0.000, p = 1.00).

Hypothesis testing and structural model

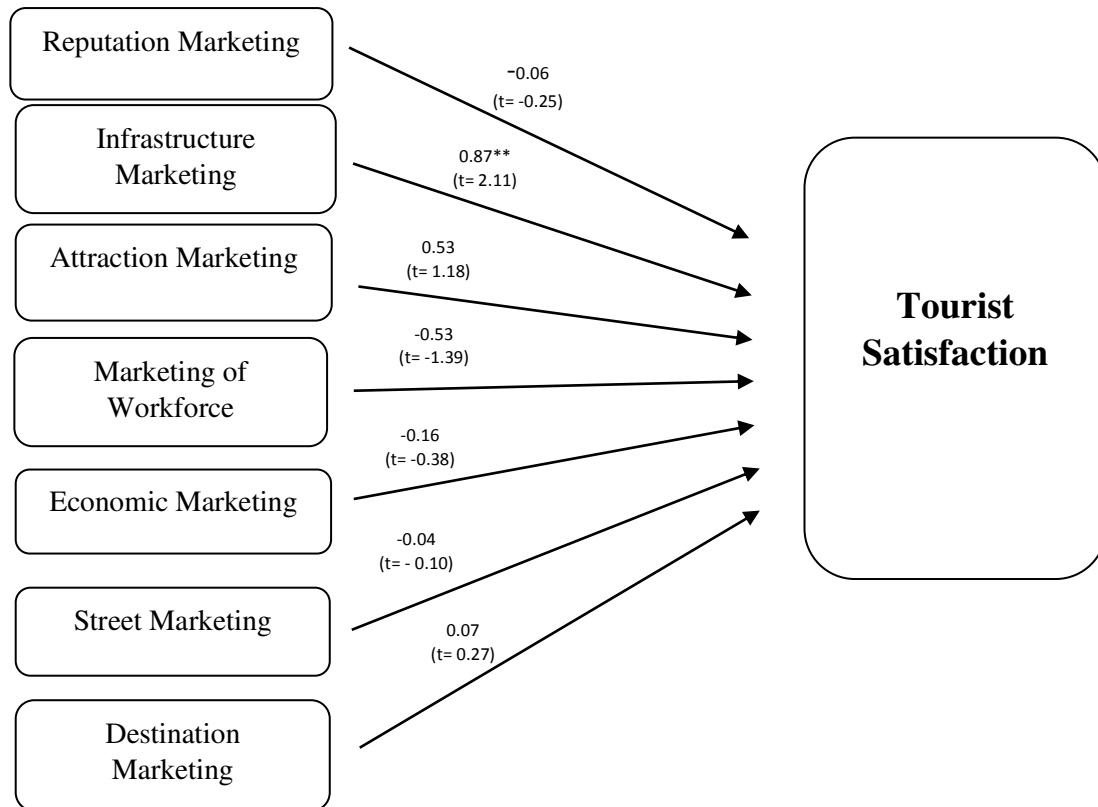


Figure 4.1 Estimated value and t-value in the initial hypothesis model

Figure 4.1 described only one hypothesis (H_2) was supported and others were rejected. H_2 : City infrastructure positively impacts on tourist satisfaction was supported (estimates=0.87, t-value=2.11). H_1 , City reputation positively impacts tourist satisfaction but the result was insignificant negative influence (estimates=-0.06, t-value=-0.25), therefore H_1 was rejected. H_3 , City attraction positively impacts on tourist satisfaction but the result was insignificant positive influence (estimates=0.53, t-value=1.18), hence H_3 was rejected. H_4 , Workforce of city positively impacts on tourist satisfaction but the result was insignificant negative influence (estimates=-0.53, t-value=-1.39), therefore H_4 was rejected. H_5 , City economic positively impacts on the tourist satisfaction but the result was insignificant negative influence (estimates=-0.16, t-value=-0.38), so H_5 was rejected. H_6 , Street marketing has positively impacts on tourist satisfaction but the result was insignificant negative influence (estimates=-0.04, t-value=-0.10) therefore H_6 was rejected. H_7 , Destination marketing has positively impacts on tourist satisfaction but the result was insignificant positive influence (estimates=0.07, t-value=0.27), hence H_7 was rejected.

5. Conclusions and Discussion

This study aimed to determine what factors influence tourists' satisfaction in during visiting on the city. The data had been collected from domestic and foreign tourists who were visit the city and the hypotheses were examined by using LISREL8.8 with Covariance Matrix. The results depicted only one hypothesis was supported and others were rejected.

H₁: City reputation positively impacts tourists' satisfaction. The results did not supported H₁ which had been supported by Zhang & Zhao (2009), Morrello & Ratti (2009), Govers (2011), & Drill (2016). The samples were from Ulaanbaatar Mongolia. This city was built in middle of 20 centuries which is a new city in the world. The previous studies researched on the historical big metropolis but Ulaanbaatar Mongolia only with one million five thousand populations which is relative young and smaller city but the capital city in Mongolia. City reputation is not so significant than other metropolis in previous studies.

The H₂ had been supported by Malthouse et al. (2004), Gearing (1974), Coviello, Winklhofer, & Hamilton (2006), the result of H₂, City infrastructure positively impacts on tourists' satisfaction. The only one hypothesis was supported. By the government paying more attention to visitors' accommodation, safety, and health; to create a tourist information center and to the most visited tourist destinations, which is information and accompanying services are provided to tourists and local residents, which shows that tourists are satisfied.

According to city attraction framework which demonstrated by Prayag and Ryan, 2012; Ramkissoon, 2013; Veasna; 2013; Yuksel & Yuksel (2010), the results supported H₃. But in this study H₃: City attraction positively impacts on tourists' satisfaction, which was rejected. For foreign tourists visiting in Mongolia, they are not really interesting about city, they more interested nomadic culture, and wants to seeing the unique setting landscapes of countryside.

Rejecting H₄: Workforce of city positively impacts on tourists' satisfaction, in this study can be explained by following reasons. The residents are very friendly to tourists and the shop, shopping centers service is good, but the lack of language knowledge, so getting languages problems among tourists and workers.

H₅: City economic positively impacts on the tourists' satisfaction, and the H₅ was not supported, which had been supported by Tulyeu, (2012) and Zhou, Liu, Tang, (2018). The reasons can be explained by there are few complex tourism centers that to relax or leisure

time or shopping when the tourists who come to visit the city or stay in the city also the main problem facing them is a language problem when a purchase or get service.

H₆: Street Marketing has positively impacts on tourists' satisfaction. The results did not support H₆ which had been supported by Sandybayev, (2018). In this study can be explained by following reasons, that the streets of Ulaanbaatar has well lighting and sign but the most serious problem is trash and sometimes the lack of toilet facilities.

H₇: Destination Marketing has positively impacts on tourists' satisfaction, was not supported in this study can be explained by following reasons. Because Ulaanbaatar city is a young town, some of the tourist destinations were lack of characteristic features also lack value or image of the difference between other places.

Recommendation

From the results of this study, consider a number of factors, there are identified some recommendations for the tourism sector who running business. Ulaanbaatar city is the main center of Mongolia, which is political, economic, social and cultural. The number of tourists visiting in Mongolia has been relatively stable over the past 10 years and the main product of our tourism industry is a natural landscape, traditional Mongolian culture, and customs, which is attracted by tourists as the history of nomadic culture, beautiful nature, and history of Mongolia and Chinggis Khaan. Approximately 70% of tourists visiting in Mongolia, they are interested in the scenic nature and often travel through the countryside, also 98% of all tourists visited through Ulaanbaatar. The most important thing in the results of this study is that need to promoting the urban culture for residents and it is necessary to take into account the language proficiency of the service sector workers. In Ulaanbaatar, there are few streets with their own culture which needs to support street art also the survey results showed that need to rebuild the night street based on created by other major cities standard with attracting commercial or tourist attractions. Also, there is an idea to encourage youth participation depends on their expressing views and provides opportunities for their contribution to the city, which organize street performances, events, and activities that attract tourists and residents. This study need for promoting to the cooperation between the public and private sector to bring new changes developing tourism, with the consistent policy, legislation, that modern tourism requirement. For future research, I would suggest to expand the research by comparing the difference between urban and rural disparities in the satisfaction of tourists and loyalty, which may be show more interesting result.

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Development of Blended Online Course in Basic Japanese at Undergraduate School Level

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Abstract

Blended learning has a great role in foreign language education during the past decade. This research investigates the development of Blended Online Course in Basic Japanese at undergraduate level in a university in Thailand. The purpose of this study includes 1) The effectiveness of Blended Online Course in Basic Japanese at undergraduate level, 3) The comparison of learning achievement between pretest and posttest, and 4) The examination of the students' perception toward the learning through Blended Online Course in Basic Japanese at undergraduate level

A quantitative method approach is employed. The research instruments are 1) Blended Online Course in Basic Japanese administered through LMS, 2) Evaluation form of the Blended Online Course, 3) Achievement Test of Blended Online Course in Basic Japanese, 4) Oral Proficiency Evaluation Form, and 5) The students' perception evaluation form. The statistical analysis includes average value (\bar{x}), Standard Deviation (S.D.), and t-test dependent.

The results show that 1) The Blended Online Course in Basic Japanese at undergraduate level has efficiency at 81.46/86.51, 2) The students' learning achievement indicates statistical significant at 0.05 comparing pretest and posttest, and 3) The participant's perception toward the efficacy of the Blended Online Course in Basic Japanese at undergraduate level is at a very high level ($\bar{x} = 4.69$, S.D. = 0.45). The study confirms that Blended learning can promote foreign language learning, Basic Japanese at undergraduate level. Implications for practice and recommendations for further studies are included in this research.

Keywords: Development, Blended Online Course, Basic Japanese, Undergraduate School Level

Introduction

The integration of the use of E-Learning and classroom-based teaching and learning, Blended learning (BL), is not a new concept. However, the terminology was not widely recognized until the beginning of the 21st century (Johnson and Marsh, 2016). BL is believed to have the potential to promote meaningful learning when it is effectively implemented. However, Marsh (2012) points out that simply blending On-line technology with face-to-face classroom does not suffice to optimize the potential of BL. There is no best formula for developing a blended course. Johnson and Marsh (2016) suggest that the most important aspect of BL design is the appropriate combination of learning modes for individual learners, contexts, and objectives.

Although new technologies promote BL in foreign language education such as EFL (English as foreign language), they bring challenges as well. Benefits include the ability to

expand foreign language learning beyond the traditional classroom and into cyberspace. Web 2.0 tools (wikis, blogs, discussion forums, voice and video tools, etc.) allow for extended practice and instruction. The challenges for blended foreign language learning are that they require language learners to be proactive and autonomous (Astin, 1999; Kuh, 2009). CALL practitioners point out that there is no direct relation between technological literacy and the ability to optimize technology for learning and positive learning outcomes (Kirkwood, 2004; Kirkwood and Price, 2005).

Blended learning has become popular and more practical for both teachers and learners because of its flexibility for course delivery. The online application part of BL does not only promote 21st-century skill for learners but also respond to individual differences in learning. To enrich the face-to-face interaction in classroom, a learning management system (LMS), the platform for online content, effectively support blended course implementation. Moreover, recent research shows that BL has a great role in foreign language education as both teachers and students have positive attitudes toward the blended approach and perceive that BL is useful for language learning (Lee & Lee, 2013; Wu & Liu, 2013).

As shown by studies related to blended learning in English as Foreign language (EFL), there are positive results in EFL learners' overall reading comprehension, oral proficiency, appropriate pronunciation and lexical accuracy (Behjat, Yamini, & Bagheri, 2012; Chen, 2010). However, the findings regarding less commonly taught language learners with a blended approach are still little known and need more exploration.

Context of the study

Japanese language education has been practiced in Thailand for several decades. Due to the benefits of having sufficient Japanese proficiency for Japanese learners such as future career, learning Japanese as a foreign language in Thailand gains more popularity each year. However, due to the insufficient Japanese teachers, Japanese classes are not provided in every school around the country. Considering the Japanese teaching resource, students in big cities have better opportunities to learn Japanese in their schools compared to students in local provinces.

For typical Thai learners of Japanese, Japanese can be considered as the second foreign language. Any scholar in second language acquisition (SLA) would agree that learning a second or foreign language requires maximum input in appropriate environment that promotes meaningful interaction and encourages output. However, most Thai learners of Japanese may not have that privilege and have the chance to study Japanese at later stage in their education. The students who expect to have careers in Japanese business and industries may start learning Japanese in university. Due to the limited resource in teaching staff and the lack of speech community of Japanese native speakers, a blended course in Basic Japanese has potential in support the learning of JFL beyond the wall of the classroom.

This study investigates the efficiency of Blended online course in Basic Japanese in one university in Thailand. Moreover, the students' learning achievement and their perception toward the blended format in Basic Japanese are also examined. The university locates in the western part of Thailand. There is no Japanese speech community that exists near the university. Thus, opportunities for the students to expose to Japanese native speakers are very limited. The classroom is the learning space where the students gain input in Japanese language and interact with their peers and teachers. The Basic Japanese course is one among many introductory foreign language courses the students can choose to complete their requirement for the second foreign language in general education of the university. Most of the students have no learning experience in Japanese before attending the class.

Blended learning and foreign language learning

The terminology “blended learning” was established around the beginning of the 21st century. Its system combines face-to-face classroom instruction with internet and computer-mediated activities (Banditvilai, 2016). The term “blended learning” (BL) is used interchangeably with “hybrid learning” (Ryan et al., 2016). BL model incorporates classroom instruction with online content delivery (Grgurovic, 2011). The BL model aims to complement the two components and promote students’ learning outcome by transitioning learning and teaching activities in classroom environment to online environment and teacher-centered to student-centered (Yen & Lee, 2011).

Blended learning is a pedagogical approach where face-to-face interaction in the classroom is combined with technologically enhanced learning of the online environment (Thang et al., 2013) Ting and Chao indicate that BL has become to gain more popularity in second language learning because online learning tools promote effectiveness, flexible, and accessible. However, to implement successful BL model for a language class, students are required to have several factors such as motivation, effective learning strategies, and dedication. Although various learning management system have advantages in providing tools for self-learning in a BL environment, teachers’ scaffolding through face-to-face interaction in traditional classroom are still necessary for many students (Ting & Chao, 2013).

Implementing BL for a second language or foreign language education needs support from a theoretical foundation in second language acquisition, SLA. Examining how second languages are acquired, the difficulties with the second language learning in natural settings or through pedagogical intervention (McCarty, 2016: 7). The insights from SLA and sub-disciplines of applied linguistics are useful for exploring Blended learning and teaching in second language or foreign language education. In other words, the more we can understand learning processes, the better we are informed as regarded as which aspects can be included in the online world.

Individual learner differences are of significant relevance to BL. Individual differences among learners may include age, gender, learning styles, affective factors (motivation, anxiety, confidence, and stress), a sense of identity, etc. These factors may be challenging to the designing of computer-mediated activities of BL courses. The out-of-class activity online has a positive side which individual learners can work successfully in their own way and in their own time without the presence of their peers and teachers. However, there are learner differences in performing the task either in the classroom or in an online environment.

The literature on individual differences points out that learning strategies and learning styles contribute to successful language learning. O’Malley and Chamot (1990) emphasize the importance of teachers and learners interacting, with teachers providing scaffolding for the effective learning strategies and strategies training. This implies that the most successful strategy training usually take place in a face-to-face classroom setting. Kohler (2002) suggests that well-constructed computer-mediate activities have the potential for promoting learning strategies. However, the signification of individual differences also reflects the fact that even well-developed computer-mediated exercises may fall foul of lack of motivation, limited engagement, and ineffective learning strategies on the part of individual learners.

Weinberg (2007) finds that students using the least time on computer-mediated activities are not necessarily the lowest achievers and vice versa, those spending the most time are not always high achievers. Although time-stamped evidence of online activities as part of BL may not be sufficient to explain the process of language acquisition, it is an effective tool for observing learners working on language activities and recording their learning outcome. Much time consuming of certain online activities might indicate that the activities seem to have presented the greatest difficulty.

Difficulty processing of language learning is one of the significant topics in SLA considered to be one factor among others; hindering language acquisition (Han, 2004). Therefore the possible difficulty showed by many students working online may suggest that the teaching materials need some modification for better processing. Hwu (2004) suggests that in order to support language learners engaging in online activity, the difficulty observed in a face-to-face classroom should be taken into consideration. This advice means that BL has the advantage of providing two different but complementary channels to observe learning.

Face-to-face classroom context is still the best place to develop humanistic aspects of language learning such as motivation, teachers' scaffolding through interaction, immediate feedback responding the individual differences. However, the online environment also offers potential to the development of language learning including:

- Opportunities for language learners to work at linguistic feature at their own pace with automatic feedback
- Contexts in which learners can practice the target language with less pressure than face-to-face conversation (e.g., through asynchronous computer-mediated communication, ACMC)
- A space where learners can explore more intra-personal and interpersonal aspects of the learning experience

The traditional foreign language classroom has been a text-based learning environment. Although the communicative approach to teaching foreign languages emphasizes the oral input and output, time constraints, large class sizes, and insufficient experienced teachers that do not promote sufficient proficiency (Hojnacki, 2016). Research on computer-mediated communication (CMC) has found that it provides several advantages over the face-to-face classroom. The benefits include the slowdown conversation, more practice, and planning time, increase in language use and time spent on language production.

The role of oral output in the SLA process has been well established in the past few decades (Swain, 1985). Based on the sociocultural theory of second language learning, language acquired through interaction in the social context. Hojnacki (2016) conducts a comparative study of oral production in a face-to-face German conversation course in the USA with online modules in the same course. The study shows that students spend more time on language production and produce more complex structure when interacting through online tools. Hojnacki describes that 'learner affect' influences language production. 'Learner affect' is the emotional aspects of learners in studying a second language. If second language learners have high anxiety due to the embarrassment or fear of low proficiency in the language, these factors could hinder their ability to attend to language forms and functions.

Given the significant role of output in the second language learning process and the advantages of blended and online course in that aspect, it seems appropriate to examine the learning outcome in both the blended learning environment and face-to-face instruction. Web 2.0 instruction tools are useful in providing students the opportunity to access authentic text, websites, and videos. Moreover, ACMC tools such as email, texting, online forums, and simulated conversation tools can help students to produce more output in the target language. These online communication technologies support foreign language students who are reserved about speaking in public to spend more time and practice more oral exercises. For these reasons BL course increases the opportunities for oral proficiency utilizing Web 2.0 while not consuming in-class instruction time.

In a blended learning course, a learning management system (LMS) has advantages in offering access to learning materials conveniently and increasing online interaction between teachers and students and among students. LMS is a software system designed for online course content organization, communication, assessment, and management of materials and activities. Jane and Tanya (2010) suggest that the benefits of LMS include efficiency,

accessibility of materials, flexibility, and participation in learning activities. Using LMS tools can promote a learner-centered, better understanding of course content by reading other students' comments on the discussion board and through engaging with the course material more often compared to a face-to-face classroom.

In a blended foreign language course, an LMS is found to improve students' listening, speaking, reading, writing, pronunciation, and grammar through interaction with peers and instructors on the discussion board (Albert, 2013) Grgurovic (2011) examines blended learning in EFL class with particular attention on the integration of online tool with face-to-face instruction. The findings show that the use of LMS improves the students' engagement in speaking task. In addition, working on online materials allows students to have more individualized instruction, as well as an opportunity for less attentive students to control their learning. Consistent with Grgurovic (2011)'s findings, Misook (2017) finds that LMS can improve students' academic presentation skills, including reading, writing, presenting, and reflective learning skills.

Despite many benefits of using LMS for promoting blended learning, foreign language instructors have also pointed out the limitations of an LMS for language learning because the system has not been specifically designed for language learning and its teaching purposes. Yu, Sun, and Chang (2010) investigate college teachers' and students' experiences with LMS concerning language teaching and learning. The study shows that both teachers and students have positive attitudes towards the LMS application. The reasons include convenient access to course materials and language resources and the support for teachers to carry out their teaching philosophy. For the limitation of LMS as not specially designed for language teaching and learning, the researchers suggest supporting instructors by providing orientations, workshops, and teaching demonstrations to maximize the benefits of LMS function in language teaching and learning.

The Study

This study investigates 1) The exploration of direction for developing Blended Online Course in Basic Japanese at undergraduate level, 2) The development of Blended Online Course in Basic Japanese at undergraduate level, 3) The comparison of learning achievement between pretest and posttest, and 4) The examination of the students' perception toward the learning through Blended Online Course in Basic Japanese at undergraduate level.

Participants are 25 students enroll in a Basic Japanese course at a small university in Thailand. Almost all the students have no learning experience in Japanese in their previous education.

The class follows a traditional face-to-face instruction format, meeting once a week for 90 minutes at a time, and is taught by a full-time professor. The syllabus is arrange around the topics presented in the textbook *Marugoto Nihongo: Japanese Language and Culture (A1)* (comparable to an A1 on the CEFR) written by Japan Foundation.

Methods

The current syllabus of the class is analyzed and 6 lessons are converted into an online delivery format. The topics chosen are: まち(city) かいもの (shopping) やすみのひ (holiday) each topics consists of 2 lessons. Before the students study the online delivery format, they have already mastered 12 lessons through face-to-face instruction. Therefore, they can read and write Hiragana (Japanese letters), basic knowledge in Japanese sound system, daily expressions, and few Japanese grammatical structures. The reason to design the blended learning in Basic Japanese by starting from face-to-face instruction first is to prepare the students for their new foreign language and the online delivery model. The 6 lessons are transformed into video clips and organized through LMS (Moodle).

Instruments, procedure, and the blended course content

The primary instrument in the study is the textbook, *Marugoto Nihongo: Japanese Language and Culture (A1)* used to choose thematic topics and to guide the in-class lessons and online delivery modules. The author is the course creator (BL course in Basic Japanese). The LMS administrator is the university staff working in computer center. The system used for learning management system is Moodle. Moodle is a free software (Open Source) created by Martin Dougamos in Australia (Rattanatilakul, 2015). Moodle is selected for online content delivery of the BL in Basic Japanese for several reasons including:

- a lot of learning and teaching tools
- an open source for free usage
- easy for user interface and doable for new course creators
- compatible with every computer platform (Windows, Linux, FreeBSD, and Mac OS X)
- support more than 60 languages including Thai

After 12 weeks the participants study Basic Japanese in classroom, they have an orientation regarding how to learn and complete activities and tasks through LMS for the Blended Course in Basic Japanese in the computer lab at the university. In order for the students to access to online content delivery provided by Moodle, the students are required to register to the computer center to access to the course. Then the research allows each student to participate in the BL course in Basic Japanese.

Moodle has a lot of tools but the study choose some tools that support the learning and teaching of Basic Japanese emphasizing language output such as chat, forum, glossary (vocabularies), label (detailed explanation), lesson, mind map, page (course content), quiz (for exercise for each lesson, pre-test, and post-test), file (course material), assignment (course tasks and speaking assignments). Moreover, other online tools include Google Docs, YouTube, and various websites.

Each of these tools, including the above-mentioned ones is used to collect data on learning outcome and oral production, and administer a survey on the students' perception toward the BL course. Each week after the classroom instruction, the week 13th -18th, the students come to the computer lab and log in to the Moodle to access the BL course. Then, they do the pre-test of each lesson, master the content material online, do the exercises in Japanese vocabularies and expressions, grammatical items, and listening activities. After that, the participants complete the post-test and submit their speaking assignments online through the Moodle system.

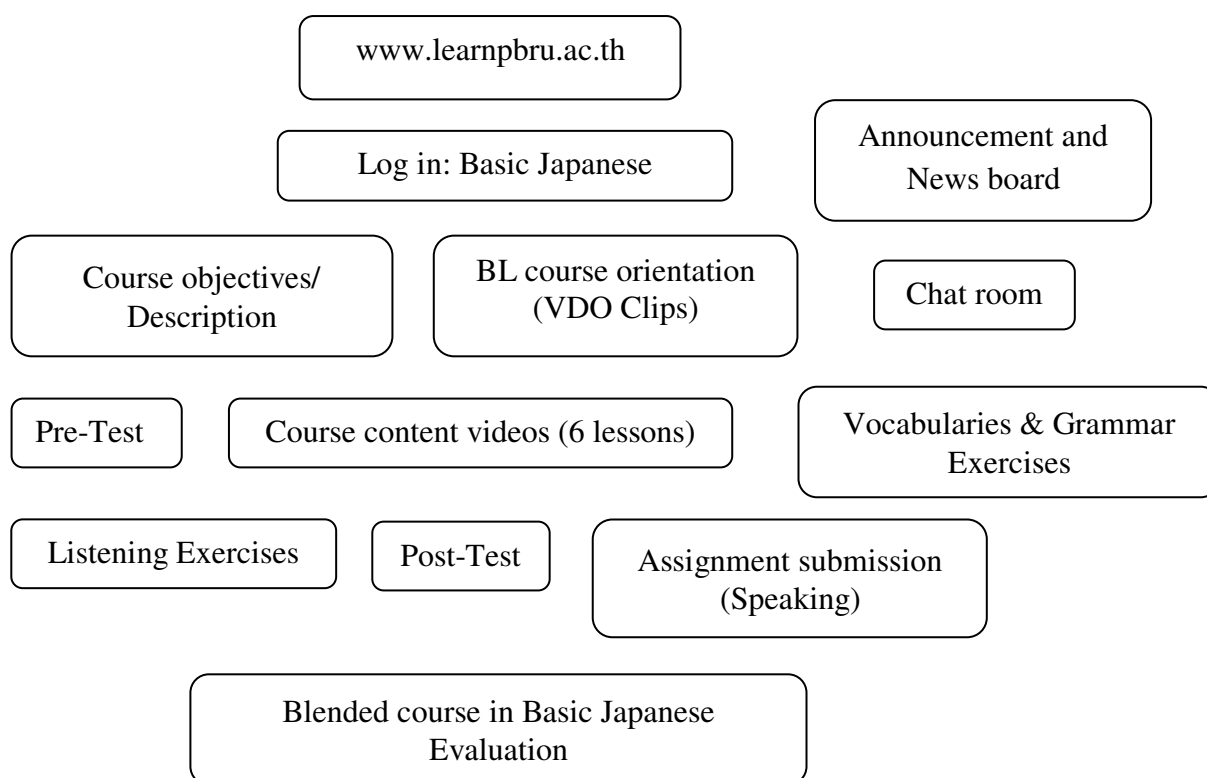
The content for each lesson, exercises, quizzes, pre-test, post-test, and speaking assignments based on the textbook, *Marugoto Nihongo: Japanese Language and Culture (A1)* which the author adapts to suit the online delivery format. The 6 topics for 6 weeks online content delivery, learning and teaching activities are as the followings.

| Topic | Content & Activities |
|------------------------|--|
| 1.Travel | Vocabularies: transportation and travelling |
| | Grammatical items: ~から~まで、~で、あるいていきます、どうやっていきますか。~にのいます、~をおります |
| | Reading & Writing: Emails exchange for commuting to the appointment location and explaining about how to get to the university |
| | Speaking: Conversations about how to travel to different places |
| 2.Places and locations | Vocabularies: places such as hotel, department stores, temple, hospital, bank etc. and adjectives for describe the places |
| | Grammatical items: i-adj. & na-adj. |
| | Reading & Writing: texts describing about the cities, and the locations of different places in the cities |
| | Speaking: conversations about locations of different places |
| 3.Shopping | Vocabularies: goods such as electric utensils, office supplies, clothes, and accessories, etc. |
| | Grammatical items: ~がほしいです。なにがほしいですか。 |
| | Reading & Writing: exchange emails about souvenirs bought for family members and things bought during holidays |
| | Speaking: conversations about things ones want |
| 4. Buying and Sailing | Vocabularies: clothes color sizes numbers and prices |
| | Grammatical items: (これ、それ、あれ) はいくらですか。~えんです。 |
| | Reading & Writing: information about clothes 'prices that each customer wants to buy |
| | Speaking: conversations between the customer and sale person in cloth shop |
| 5.Telling experiences | Vocabularies: adjectives about feeling such as interesting fun happy delicious etc. and activities on holidays |
| | Grammatical items: ~ました。~ませんでした。~でした。~じゃなかったです。~かったです。~くありません。~どこにも~ません。~なにも~ません。 |
| | Reading & Writing: paragraphs about activities on holiday |
| | Speaking: conversations about activities on holiday |

(Continued)

| Topic | Content & Activities |
|-------------------------|--|
| 6. Tell what one wants. | Vocabularies: recreations and traveling |
| | Grammatical items: それから、でも、そして、～たいです。～たくないです。 |
| | Reading & Writing: essays about traveling, things someone did, and thing someone wants to do in future |
| | Speaking: conversations about traveling experiences |

The organization of Blended course in Basic Japanese by Moodle, LMS is shown below.



Analysis, Results & Discussion

(1) The effectiveness of Blended Online Course in Basic Japanese at undergraduate level

Research on the effectiveness of blended learning has been explored in several aspects, including students and teachers' perceptions, motivation, learning outcome, the administrators' opinions, etc. This study examines the effectiveness of the BL course in Basic Japanese basing on the learning process and the learning outcome using the E1/E2 formula with 80/80 standard criteria. Both formative assessment and summative assessment include Japanese linguistic knowledge and Japanese speaking proficiency test. The Japanese

linguistic knowledge test is administered online in the computer lab, but the speaking test is conducted by the author. The result of the efficacy evaluation is shown in the table below.

Table 1: The effectiveness of Blended Course in Basic Japanese at Undergraduate school level (n = 25)

| S* | Formative assessment (60 points) 3 test: Achievement test + Speaking test (Achievement test = 10 points + Speaking assessment = 10 points) x 3 tests) 20 Points per each test | | | | | | Formative assessment (E1) 60 points | Summative assessment (E2) (Test & Speaking) 35 points | | |
|---------------------|---|-----|----------|------|----------|------|--|---|----------------|-------------|
| | Test (1) | | Test (2) | | Test (3) | | | Test 25 | SP* * 10 | Total 35 |
| | 10 | 10 | 10 | 10 | 10 | 10 | | | | |
| 1 | 8 | 7 | 8 | 8 | 8 | 7 | 46 | 20 | 9 | 29 |
| 2 | 8 | 8 | 7 | 8 | 9 | 8 | 48 | 22 | 10 | 32 |
| 3 | 9 | 9 | 8 | 8 | 8 | 8 | 50 | 23 | 8 | 31 |
| 4 | 8 | 7 | 9 | 8 | 8 | 8 | 48 | 21 | 9 | 30 |
| 5 | 8 | 8 | 8 | 8 | 7 | 9 | 48 | 22 | 8 | 30 |
| 6 | 9 | 7 | 8 | 7 | 9 | 8 | 48 | 22 | 9 | 31 |
| 7 | 8 | 9 | 9 | 8 | 7 | 7 | 48 | 22 | 8 | 30 |
| 8 | 8 | 8 | 7 | 9 | 9 | 9 | 50 | 22 | 10 | 32 |
| 9 | 8 | 9 | 9 | 9 | 8 | 9 | 52 | 19 | 9 | 28 |
| 10 | 9 | 9 | 10 | 9 | 9 | 8 | 54 | 21 | 10 | 31 |
| 11 | 8 | 10 | 10 | 7 | 9 | 10 | 54 | 22 | 7 | 29 |
| 12 | 8 | 7 | 8 | 9 | 8 | 10 | 50 | 22 | 10 | 32 |
| 13 | 8 | 7 | 7 | 8 | 7 | 7 | 44 | 22 | 7 | 29 |
| 14 | 7 | 9 | 7 | 8 | 7 | 8 | 46 | 24 | 10 | 34 |
| 15 | 8 | 8 | 8 | 7 | 9 | 7 | 47 | 22 | 9 | 31 |
| 16 | 8 | 8 | 9 | 8 | 8 | 8 | 49 | 21 | 8 | 29 |
| 17 | 7 | 9 | 8 | 9 | 8 | 9 | 54 | 18 | 9 | 27 |
| 18 | 8 | 7 | 9 | 8 | 9 | 8 | 49 | 21 | 9 | 30 |
| 19 | 8 | 9 | 7 | 7 | 7 | 9 | 47 | 19 | 8 | 27 |
| 20 | 9 | 9 | 9 | 9 | 8 | 7 | 51 | 22 | 9 | 31 |
| 21 | 8 | 7 | 9 | 7 | 8 | 8 | 47 | 21 | 10 | 31 |
| 22 | 8 | 9 | 7 | 8 | 7 | 8 | 47 | 18 | 10 | 28 |
| 23 | 8 | 8 | 9 | 8 | 9 | 7 | 49 | 23 | 8 | 31 |
| 24 | 9 | 8 | 8 | 8 | 8 | 8 | 49 | 23 | 10 | 33 |
| 25 | 8 | 9 | 9 | 8 | 8 | 9 | 51 | 23 | 8 | 31 |
| total | 203 | 205 | 207 | 201 | 202 | 204 | 1,222 | 535 | 222 | 757 |
| \bar{x} | 8.12 | 8.2 | 8.28 | 8.04 | 8.08 | 8.16 | 48.88 | 21.4 | 8.88 | 30.28 |
| % | 81.2 | 82 | 82.8 | 80.4 | 80.8 | 81.6 | 81.46 | 85.6 | 88.8 | 86.51 |
| E1/E2 = 81.46/86.51 | | | | | | | | | | |

S* = student

SP** = speaking

As shown in Table 1 the result of the effectiveness of Blended Course in Basic Japanese at Undergraduate school level is at 81.46/86.51, which meets the specified criteria 80/80. This is because of the advantages of the integration of online delivery format with

face-to-face interaction in the classroom. For each lesson contents, the vocabularies, grammar points, and reading and writing, the participants can access to the modules anytime anywhere in addition to working in the computer lab. This learning environment proves that it can promote their learning outcome. With teacher presence in the computer lab, while the students completing their task, the teacher can observe the learning behavior and scaffold the students appropriately both online and through face-face-interaction in class. For speaking production, the result consistent with Hojnacki (2016) that extended oral practice through ACMC with the benefit of less pressure can promote oral output.

(2) Learning achievement

The statistical analysis of learning achievement shows that the 25 participants increase the linguistic knowledge of Basic Japanese significantly by studying the blended course in Basic Japanese. There is statistical significant difference between pre-test and post-test.

Table 2: Comparison of test result of Blended Course in Basic Japanese (n=25)

| Student | Pretest | Posttest | D | D ² |
|-----------|---------|----------|-------|----------------|
| 1 | 20 | 22 | 0 | 0 |
| 2 | 22 | 22 | 0 | 0 |
| 3 | 22 | 23 | 1 | 1 |
| 4 | 15 | 21 | 6 | 36 |
| 5 | 16 | 22 | 6 | 36 |
| 6 | 19 | 22 | 3 | 9 |
| 7 | 22 | 22 | 0 | 0 |
| 8 | 21 | 22 | 1 | 1 |
| 9 | 14 | 19 | 5 | 25 |
| 10 | 18 | 21 | 3 | 9 |
| 11 | 22 | 22 | 0 | 0 |
| 12 | 19 | 22 | 3 | 9 |
| 13 | 15 | 22 | 7 | 49 |
| 14 | 20 | 24 | 4 | 16 |
| 15 | 22 | 22 | 0 | 0 |
| 16 | 17 | 21 | 4 | 16 |
| 17 | 16 | 18 | 2 | 4 |
| 18 | 16 | 21 | 5 | 25 |
| 19 | 19 | 19 | 0 | 0 |
| 20 | 16 | 22 | 6 | 36 |
| 21 | 19 | 21 | 2 | 4 |
| 22 | 16 | 18 | 2 | 4 |
| 23 | 23 | 23 | 0 | 0 |
| 24 | 18 | 23 | 5 | 25 |
| 25 | 16 | 23 | 7 | 49 |
| Total | 463 | 535 | 72 | 354 |
| \bar{x} | 18.52 | 21.4 | 2.88 | 14.16 |
| S.D. | 2.725 | 1.554 | 2.471 | 16.275 |

Sig. $t_{(0.05,df=24)} = 5.825^$

This statistic result confirms the BL course is effective in promoting linguistic knowledge in Japanese even for complete beginners. The benefits of the blended format and online tools that allow for an extended period of learning grammatical items, vocabularies

and practicing language skills including listening, reading, and writing complement what are learned in limited time in the classroom. As several studies in BL in foreign languages point out, learning achievements appear to be higher than in either fully face-to-face or exclusive online format (Owston et al., 2013; Misook, 2017). This study is consistent with other BL research in other less commonly taught language as well, such as BL in Korean course. Misook (2017) examines student perceptions of course effectiveness factors for language proficiency as well as learner autonomy in a blended Korean language course to improve language achievement, especially in listening and reading comprehension skills. Misook's study shows that the blended Korean language course is effective for language learning achievement.

The fact that the online tools of Moodle which promote communication between students and teachers can enhance the content mastery for quite weak students contributes to the significant difference of the whole class. This can be explained by the sociocultural theory that learning occurs through interaction and communication in the social context. Therefore the Blended Course in Basic Japanese confirms that face-to-face instruction and communication through online tool can promote learning achievement.

3) The examination of the students' perception toward the learning through Blended Online Course in Basic Japanese at undergraduate level

After the participants finish the BL course in Basic Japanese and post-test, the author administers the survey of students' perceptions toward the BL course. The survey is created by Google Form and conducted by online tools in Moodle, LMS. The item evaluation is 5-level rating scale (5 = extremely agree, 4 = strongly agree, 3 = fairly agree, 2 = little agree, 1 = least agree) the survey results are shown in the table below.

Table 3: students' perception toward the learning through Blended Online Course in Basic Japanese at undergraduate level

| Item Evaluation | Evaluation | |
|--|------------|-------|
| | \bar{x} | S.D. |
| 1. Blended online course in Basic Japanese is suitable. | 4.8 | 0.408 |
| 2. The content is appropriate to your knowledge and skills in Japanese. | 4.84 | 0.435 |
| 3. The content and activities are interesting. | 4.84 | 0.435 |
| 4. The course materials are appropriate. | 4.6 | 0.5 |
| 5. Homework and assignments are appropriate. | 4.6 | 0.5 |
| 6. Test of each lesson is appropriate. | 4.48 | 0.509 |
| 7. The oral assessment is appropriate. | 4.76 | 0.43 |
| 8. Assessment in classroom is reliable. | 4.76 | 0.43 |
| 9. Lesson and exercises are suitable for reviewing at the students' convenience. | 4.64 | 0.48 |
| 10. Peers' communication is supportive. | 4.76 | 0.43 |
| Total | 4.692 | 0.458 |

According to the survey results, students' perception toward the learning through Blended Online Course in Basic Japanese is at strongly agree level ($\bar{x} = 4.692$, S.D. 0.458). Considering all the evaluation items, there are 9 items are rated at extremely agree, and 1 item is evaluated at strongly agree. This result confirms that the students have a highly positive perception toward the learning of the BL course in Basic Japanese. According to BL research, most studies show that students and teachers experiencing BL course often have a

positive attitude toward the program of learning. Consistent with Misook (2017)'s study on students' perspective, the students agree that LMS can support their language learning because LMS encourages student-faculty contact, cooperation among students, and allows more time on task.

Also, studies by George-Walker, Hafeez-Baig, Gururajan, & Danaher (2010) and Grgurovic (2011) confirm that a blended language course of higher education show that faculty and students have positive attitudes towards the use of LMS because of advantages such as the students' connection between in-class work and online work, and interaction between the teachers and students. Therefore, the findings of Blended course in Basic Japanese at undergraduate school level support the theoretical concepts in second language learning that online tools and pedagogy that promote student-center and enhanced input, provide sufficient scaffolding, communication, and peers collaboration, and being flexible and accessible contribute to the positive perceptions of language learners.

Conclusion and Suggestions

The present study attempts to examine the efficiency of the Blended course in Basic Japanese at undergraduate school level in Thailand, learning achievement, and the students' perceptions toward the Blended course. The findings show that the blended course in Basic Japanese is effective in promoting linguistic knowledge and language skills, including speaking production. The efficiency is at 81.46/86.51, which pass the criteria standard (80/80). This is consistent with the finding that the students gain learning achievement with statistical different at 0.05 level. Moreover, the participants have positive perceptions of the quality of the Blended course at a very high level ($\bar{x} = 4.69$, S.D. = 0.45).

Overall, the current research confirms that blended learning in foreign language education, even less commonly taught language such as Japanese, is effective with appropriate LMS and pedagogy that support students' learning needs and language proficiency. Future research could examine the use of various CMC tools in different Japanese language skills, including reading and writing. Also, it would be valuable to explore how different levels of Japanese learners would benefit from the BL in Japanese.

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Japan-ASEAN Relations: A Fundamentalist Perspective

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Abstract

This paper analyses Japan's roles and strategies towards its peripheral Southeast Asia through providing an alternative solution to the present academic and policy debate among realism, liberalism, and constructivism. The study of powers, interests, and norms, taken separately, so far, cannot provide a full picture of authentic dynamics, actual goals of Japan's specific policies towards the region. Thus, a pragmatic view of the issue is expected to provide a not less fundamentalist and somewhat critical insight into the studied matter. This pragmatism approach is a compromising and complementary combination of the three main theories. It helps to view Japan's Southeast Asian policies from different angles, at different layers simultaneously. On the other hand, this paper argues that Japan's Southeast Asian policies take Japanese nationalism, in terms of comprehensive national capability, as their guiding values. This nationalism is not the same as the past one of Japanese militarism. Actually, it moderates itself in response to changes and challenges in Japanese domestic and international- regional eco-politics. This new one is best termed as Japanese "soft hegemony." This view to Japan helps to realize the rigidness of Japanese dynamics, rationales, goals, and at the same time, the flexibility of Japanese practical policies of economics, politics, security, which Japan has been maneuvering to deal with its regional subordinate nations for the last 40 some years. These policies are conducted in a tactically soft, tactful manner in order to most effectively maximize their ultimate goals of intensive national content.

Keywords: Japan, Southeast Asia, 'soft hegemony', international relations, policy, comprehensive, national capability, pragmatic, fundamental.

Introduction:

Relations between Japan and Southeast Asian countries including Japan's role, position, perceptions, and policies have been discussed to a great extent in the literature. But it is argued here that these issues have not yet been properly accessed. This paper aims to fill in this academic vacancy. There are basically two mainstream approaches to Japan and its policies towards Southeast Asian countries. Liberals and constructivists on one hand believe that the world after the World War II and especially after the Cold War has seen tremendous changes both politically and economically. According to them, the bi-polar world led by the US and the Soviet Union has been replaced by a uni-polar world led by the sole remaining super power, the US. This mono-polar world leaves room for more multilateralism and for institutionalism to become dominant at regional levels.¹ The liberals and constructivists believe that institutionalized cooperation, idea sharing, and cultural exchanges can help to tie people and nations together. This system of cooperative and mutual interests would function

¹Robert O. Keohane; Lisa L. Martin, "The Promise of Institutional Theory," *International Security*, (Vol. 20, No. 1, Summer 1995), 40-1.

as an international “invisible hand” to solve conflicts of all kinds and thus maintain political and economic stability (the common goal that all nations pursue).² Japan is thus viewed as a benign power whose national identity and image reflect pacifism, cooperation, mutualism, and equality. The liberals and constructivists see Japan as a peaceful power whose development would pose no threats but rather opportunities for economic and political stability throughout the region.³

On the other hand, both realists and neo-realists have a much more pessimistic view of Japan and its policies towards the small countries in Southeast Asia. They believe that neither liberalism nor neo-liberalism will guarantee economic and political stability in the region. All states focusing on the maximization of self-interest would be committed to state sovereignty as opposed to regional cooperation.⁴ For realists, the constructivist theory of idea sharing and cultural exchange would not benefit the world’s political economy. Negotiation and international norms have little weight if not backed up by actual power, especially military power. For realists, the world is still basically anarchic. States create wars and wars create states along with balances and imbalances of power.⁵ From the realist point of view, Japan is still a hegemonic imperialistic power whose own interests are maintained at the expense of others. Its –Pacifism and economic cooperativeness are just a guise. Japan remains nationalistic and aggressive. Its economic interests are far from satisfied and its political ambition is not confined to its borders or even the region. Realists believe that sooner or later a militarist Japan will emerge as formidable nuclear power.⁶

This paper argues that none of the aforementioned approaches is correct: liberal, constructivist, realist, or neorealist. None accurately depict Japan’s national identity, image, dynamics, or roots of its foreign policy. Methodologically, scholars are wedded to their favored paradigm.⁷ They therefore see only a limited picture of international relations. The realists focus on power, the liberals focus on interests, and the constructivists focus on ideologies and norms. The realists turn away from the fact that institutions do exist and function. Liberals ignore the fact that conflicts still hurt and kill people. Constructivists ignore the plight of poor countries bullied by super powers.⁸

This paper suggests that we should take an eclectic-fundamental stance combining the traditional paradigms in a flexible way that makes them complimentary.⁹ Due to recent

² Michael C. Desch, "Culture Clash: Assessing the Importance of Ideas in Security Studies," *International Security*, (Vol. 23, No. 1, Summer 1998), 143-4.

<http://links.jstor.org/sici?sici=0162-889%28199822%2923%3A1%3C141%3ACCATIO%3E2.0.CO%3B2-9>.

³ Amitav Acharya, “Collective Identity and Conflict Management in Southeast Asia,” in Emanuel Adler and Michael Barnett, eds., *Security Communities*, (Cambridge: Cambridge University Press, 1998), 205.

⁴ Peter D. Feaver, et al, “Correspondence: Brother, Can You Spare a Paradigm? (Or Was Anybody Ever a Realist?),” *International Security*, (Vol. 25, No. 1, Summer 2000), 165-193.

<http://www.princeton.edu/~amoravcs/library/brother.pdf>

⁵ Jeffrey W. Legro and Andrew Moravcsik, "Is Anybody Still a Realist?" *International Security*, (Vol. 24, No. 2, Fall 1999), 7-8.

⁶ Masaru Tamamoto, “A Nationalist’s Lament: the Slippery slope of Koizumi’s Foreign Policy”, *Asia Program Special Report* (119, February, 2004), 10–15.

⁷ Rudra Sil, "The Foundations of Eclecticism: The Epistemological Status of Agency, Culture, and Structure in Social Theory," *Journal of Theoretical Politics*, (Vol.12, No.3, 2000), 55-6.

⁸ Joseph E. Stiglitz and Andrew Charlton, “The Development Round of Trade Negotiations In The Aftermath of Cancun” A Report for the Commonwealth Secretariat prepared with the Initiative for Policy Dialogue (IPD) (Paperback - January 30, 2005), 34-6.

⁹ Peter J. Katzenstein, and Nobuo Okawara, “Japan, Asian-Pacific Security, and the Case for Analytical Eclecticism”, *International Security*, (Vol. 26, No. 3, Winter, 2001-2002), 163-4.

political and economic changes, nations no longer entertain separate notions of power, interest, or identity. They now consider potential power as actual power and this influences both their interest and identity in international arena. On one hand, the eclectic view portrays Japan as less aggressive than the realist view. On the other hand, the eclectic view portrays Japan as less pacifist than the liberal view. It refuses to accept the notion that Japan will bring only peace and economic development to the region. The eclectic view sees Japan as a “soft hegemon” whose national interests will be protected, promoted, and expanded. The nationalism of post-war Japan is less pronounced than the nationalism of pre-war Japan. Instead of stubbornly and aggressively promoting its own interests, Japan now seeks regional and international approval. But it is still intent upon national interest maximization and transaction cost reduction.¹⁰ Methodologically, the eclectic-fundamental perspective shows both sides of the same coin involving Japanese strategy in Southeast Asia: first, the phenomenal on-the-ground policy performances and, second, the fundamental dynamics behind those performances. This paper demonstrates that eclecticism, rather than blurring and fading fundamental values, presents them in a new and brighter light.

This paper also avoids the narrowness of more parsimonious approaches. Much of the existing literature is devoted to either neo-realism or neo-liberalism and therefore is methodologically oriented toward materialism, empiricism, and positivism. It typically focuses on observable facts and figures in analyzing the implementation of policy.¹¹ The literature thus overlooks both the historical roots and the present dynamics of Japan’s policy making. Realists are bound to conservative assumptions involving self help, zero-sum games, and balancing. Constructivists and liberals remain convinced that cooperation and interdependence can resolve all conflicts. Together, realists, liberals, and constructivists focus mainly on political-security issues or economic-social issues one at a time. They give priority either to sovereignty of the state or to the mechanism of the market, separately.¹² On the other hand, this paper suggests a more holistic approach integrating politics or economics. It further suggests a more normative approach analyzing Japan’s foreign policies in layers that include values, intentions, interpretations, and methods of implementation. It views Japanese policy-making from three main angles: consequentialism emphasizing goals, functionalism emphasizing process, and structuralism emphasizing a matrix of instrumental of economic and political policies.

This paper argues that introducing the concept of the “soft hegemon” can help reveal the real nature of Japan and its ambitions. There is a kind of “bipolarism” in which Japan’s “moderate” stance promotes its hegemony. It is a paradoxical situation: soft - hegemon, flexible policy making - rigid national interest, pacifism - nationalism, cooperation - exploitation, engagement - control, share – monopolize. But this model accurately reflects Japan’s behavior. Japan should be perceived as a “soft hegemon” exhibiting flexible short-term policies in support of rigid long-term goals. Nationalism/realism are the underlying/latent values behind Japan’s declared policies of liberalism/constructivism and its benign image as a peaceful power.

Such combined and integrated policies can best reflect the softness, flexibility nature of the Japanese hegemonic image. They are a creative and changeable combination of

¹⁰ Richard Rosecrance, *The New Great Power Coalition*, (Maryland: Rowman & Littlefield, 2001), 12-3.

¹¹ Peter J. Katzenstein, and Nobuo Okawara, “Japan, Asian-Pacific Security, and the Case for Analytical Eclecticism”, *International Security*, (Vol. 26, No. 3, Winter, 2001-2002), 162-4.

¹² John S. Duffield, et al, “Isms and Schisms: Culturalism versus Realism in Security Studies”, *International Security*, (Vol. 24, No. 1, Summer, 1999), 159.

instrumental policies ranging from economic, social-cultural relations to political, security ones.¹³ These combined policies are implemented to efficiently utilize all the perceived resources to realize expected goals of core national interest maximization. These resources are any or all among: geopolitical relations; resource suppliers; economic, trade relations, investment, and financial aids; important sea-lane; strategic geo-political position; shared values of freedom, democracy, anti-communism; partnership at regional forum/institutions. Regional and international changes are also input resources to be considered by Japanese policy makers.

As these relations in fact involve participation from not only Japan but also Southeast Asia, then it is better to design a matrix which can structurally help show a systemic relations and dynamics of policy changes between Japan and Southeast Asian nations.¹⁴

| | | JAPAN | |
|-----------------------|-------------------|-------------------|-----------|
| | | Politics-Security | Eco-Socio |
| A S E A N | Politics-Security | I | II |
| | Eco-Socio | III | IV |

Figure 1: Japanese policy flexibility horizontally viewed
(Source: constructed by the authors)

Japan’s policies towards Southeast Asia that move around the four areas named I, II, III, IV, reflect the pragmatic flexibility of the hegemon in responding to both domestic and regional, international changes to assure the fundamental primacy of its strategic position.¹⁵

This framework will be utilized to examine Japan’s foreign policies during three periods, 1967-1974, 1975-1989, and 1990-present. The starting point of 1967 is chosen to make an analytical connection between Japan and Southeast Asia’s regional institution, ASEAN, which was established that year. During this first period, Japan showed itself to be a mainly economic animal, which is best depicted by section IV. In the second period from 1975 to 1989, Japan became more politically active asserting its national interests both regionally and internationally. This policy change would be explained as a policy transition from section IV to section III in the matrix, where the politic-security goals were still tactically disguised in forms of eco-socio co-operations. In the third period from 1990 to now,

¹³ Tsuneo Akaha, “Japan’s Comprehensive Security Policy: A New East Asian Environment,” *Asian Survey*, (Vol. 31, No. 4. Apr., 1991): 324-340.

¹⁴ As ASEAN has already included all ten Southeast Asian nations, therefore, we use the two terms interchangeably.

¹⁵ Note here that, Japan’s flexibility in utilizing various policies is not new in the literature. It is at best a description of surface phenomena. However, this flexibility placed in a close scrutiny of values, goals, resources, to see the real dynamics of the whole decision making process is the contribution of the paper.

Japan was concerned not only about the stagnancy of its economy but also more directly about its security in view of the collapse of the Soviet Union, the rise of China, the gradual withdrawal of the US from the region. The third period would be best placed completely in section III of the matrix, where Japan could more explicitly declare its political-security goals, however, still through eco-socio instrumentals. But during all three periods, Japan continued to play the principle role of a “soft hegemon” described as “GNP nationalism” by Prime Minister Yoshida 60 years ago.¹⁶

The final section of this paper is designed to draw conclusions with regard to Japan’s national security and foreign policies. The implications for Southeast Asian countries are discussed with an eye to developing more favorable relations with Japan. It is important for ASEAN countries to cooperate in order to maintain the stability necessary for both security and development. They must deal with Japanese hegemony on the one hand and at the same time take advantage of its “softness.”

Was Japan just expanding its economic interests, 1967-1974?

Before studying the first period in Japan – Southeast Asian relations, we should go back a bit further into the past to the beginning of Japanese involvement in the region.

Even before WWII, the leaders of Japan recognized geopolitical importance of Southeast Asia. The region was a huge supplier of natural resources which Japan lacked. These materials could not have been obtained elsewhere without a significant increase in transportation costs. During the War, Southeast Asia was the main source of supplies used to fuel the war machine.¹⁷

After the WWII, Southeast the region was no less important to Japan’s development survival and security. Once China fell to the Communists, it ceased to function as the main market for Japanese goods. This led to Japanese dependence on the US for both exports and imports. In order to liberate itself from this unfavorable trade situation, Japan once again turned toward Southeast Asia. Japan was also being pressured by the Western world in general and the US in particular to take a more active role throughout Asia to prevent the expansion of communism. Another factor was Japan’s reparation program to compensate countries for damages incurred during the War. This gave Japan the opportunity and the legitimacy to re-establish its presence in the Southeast Asia.¹⁸

The region resumed its role as a huge market and a vital source of raw materials. Southeast Asia was also of great geo-political significance inasmuch as most of Japan’s exports and imports including oil went through the Malacca Strait. The mainstream literature attributes Japan’s return to the region to purely economic motives. But in this paper it is argued that Japan’s motives were also political albeit hidden. They are hidden because Japan as a defeated nation was under the thumb of the United States.¹⁹ The Japanese thus appeared to be very passive.

¹⁶ Chaiwat Khamchoo, “Japan's Role in Southeast Asian Security: "Plus ca Change ...", *Pacific Affairs*, (Vol. 64, No. 1, Spring, 1991), 11.

¹⁷ Robert O. Tilman, *Southeast Asia and the Enemy Beyond: ASEAN Perceptions of External Threats*, (Boulder, Colo.: Westview Press, 1987), 30.

¹⁸ Takashi Shiraishi, "Japan and Southeast Asia," in Peter Katzenstein and Takashi Shiraishi, eds., *Network Power: Japan and Asia*, (Ithaca, NY: Cornell University Press, 1997), 171.

¹⁹ Clayton D. James, "American and Japanese Strategies in the Pacific War," in Peter Paret, ed., *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*, (Princeton: Princeton University Press, 1986), 54-56.

Practically speaking, the anti-communism advocated by the US and other Western nations was right in line with Japanese strategy. In 1952, Prime Minister Yoshida declared that Japan's expansion in the region would help stabilize regional economies. And stability would insure markets for Japanese exports as well as critical supplies of imports.²⁰ Philosophically speaking, Japan's economic goals in the region were not purely economic nor were they purely in response to US requirements. Japanese foreign policy was both political and economic and intended to promote its national interest as outlined by Yoshida during his first terms in office (1946-1947; 1948-1954).²¹

The mainstream literature views Japanese diplomacy as passive as its Constitution and both in response to US bullying after WWII. No argument to the contrary is made here. Instead the concept of "soft hegemony" complements that view. The Japanese were never so passive as to accept everything anything imposed upon them. They in fact reacted to aftermath of the war in a clever and reasonable way.²² When the Constitution was adopted, there were divisions within the ruling party, the LDP. The extreme nationalists opposed the moderate nationalists led by Yoshida who supported the Constitution. But both factions were nationalistic to the core. Although Yoshida's "economically oriented" doctrine separated economics and politics, it was nonetheless grounded in the national interest. "GNP nationalism" proclaimed to the entire world that Japan was a divine nation. As its economy grew, the Japanese built a modern and powerful nation to regain the respect of other nations.²³

Some scholars argue that it is impossible for the Japanese to live without a "proper" national identity. After their humiliating defeat in the War, they suffered a crisis of national identity. Yoshida alleviated the problem by focusing on "GNP nationalism". The Yoshida doctrine utilized neo-liberalist principles to promote economic cooperation. Economic activities served Japan's national interest whereas political activities would have generated high transaction costs due to fear and resentment in the region.²⁴

Although we are not opposed to the mainstream contention that Japan was an economic from 1945 to 1974, we contend that its assertive and sometimes aggressive economic activities were part of its strategic plan which included a latent but fundamentally important political element.²⁵

In the period from 1967 to 1974, Japan reasserted its influence in Southeast Asia first through reparation and then through other forms of aid and most importantly trade. Japan participated in some regional organizations but its economic penetration was predominantly

²⁰ Alan Rix, "Japan and ASEAN: More than Economics," in Allison B., ed., *Understanding ASEAN*, (London and Basingstoke: the Macmillan Press, 1982), 187.

²¹ Chaiwat Khamchoo, "Japan's Role in Southeast Asian Security: "Plus ca Change ...", *Pacific Affairs*, (Vol. 64, No. 1, Spring, 1991), 7-8.

²² Donald C. Hellmann, "Japan and Southeast Asia: Continuity Amidst Change," *Asian Survey*, (Vol. 19, No. 12, December 1979), 1154.

²³ Alan Rix, "Japan and ASEAN: More than Economics," in Allison B., ed., *Understanding ASEAN*, (London and Basingstoke: the Macmillan Press, 1982), 7.

²⁴ Chaiwat Khamchoo, "Japan's Role in Southeast Asian Security: "Plus ca Change ...", *Pacific Affairs*, (Vol. 64, No. 1, Spring, 1991), 10.

²⁵ Alan Rix, "Japan and ASEAN: More than Economics," in Allison B., ed., *Understanding ASEAN*, (London and Basingstoke: the Macmillan Press, 1982), 7-8.

achieved through bilateral means.²⁶ Japan's economy expanded rapidly in the 1960s and early 1970s generating a tremendous demand for raw materials. At the same time, Southeast Asian countries were also making economic progress. This situation led to interdependence between a resource-hungry Japan and a Southeast Asia which was short of both capital and technology.

The Japanese naturally maintained that reparation and aid was intended to benefit countries in the region when in fact they were intended to mainly benefit Japan.²⁷ The focus of such programs was on the exploitation and exportation of natural resources. Some of Japan's aid was project based but the projects were typically high-profile. They were designed to improve the image of Japan rather than fulfill the needs of a particular country or the region.²⁸ Much of the bilateral aid was in the form of loans as opposed to grants. And there were strings attached. More often than not, the money was required to be spent on import goods from Japan. The stated goal of Japan's involvement in the region was economic development but most of the development took place in Japan rather than the region. And, in the process, Southeast Asia became Japan's "bailiwick".²⁹

In order to firmly establish its leading role, Japan under Prime Minister Kishi lobbied for the establishment of a regional financial fund in 1957 (Asian Development Fund). This effort failed to persuade not only the US but also the Southeast Asia. The countries in the region feared that Japanese hegemony would lead to cruel exploitation.³⁰ The Asian Development Bank was nevertheless established by Japan in 1966. The Japanese controlled the Bank and held its presidency from the outset. Through the bank, Japan gained a tighter grip on the region's economic affairs and regained its status as the region's most influential economic power. But the bank did not improve Japan's image in the region. The countries of Southeast Asia recognized that Japan was serving its own national interests at their expense.³¹

In this period of economic penetration, Japan's formal political participation in the region was minimal.³² Japan did not show much interest in the establishment of ASEAN in 1967. This position was in line with its principle of economic and political separation on the one hand and on the other its realist calculation of national interest. Japan regarded ASEAN as of little significance for a number of reasons.³³ First, ASEAN was a new institution with limited influence in a world dominated by superpowers. Second, its members had problems both domestically and regionally. Third, Japan feared that ASEAN could become a collective bargaining power that would reduce Japan's growing trade surplus with Southeast Asia. Japan's limited political role in the region during this period included participation in an

²⁶ William R. Nester, *Japan and the Third World: Patterns, Power, Prospects*, (New York: St Martin's Press, 1992), 35.

²⁷ Alan Rix, "Japan's Foreign Aid Policy: A Capacity for Leadership?", *Pacific Affairs*, (Vol. 62, No. 4, Winter, 1989-1990), 461-2.

²⁸ Anny Wong, "Japan's Comprehensive National Security Strategy and Its Economic Cooperation with the ASEAN Countries," *Research Monograph 6*, (Hong Kong Institute of Asia-Pacific Studies, 1991), 8-9

²⁹ Chaiwat Khamchoo, "Japan's Role in Southeast Asian Security: 'Plus ca Change ...'", *Pacific Affairs*, (Vol. 64, No. 1, Spring, 1991), 19.

³⁰ Donald C. Hellmann, "Japan and Southeast Asia: Continuity Amidst Change," *Asian Survey*, (Vol. 19, No. 12, December 1979), 1157-8.

³¹ *Ibid.*, 1163.

³² Bhubhinder Singh, "ASEAN's Perceptions of Japan: Change and Continuity," *Asian Survey*, (Vol. 42, No. 2, Mar. -Apr., 2002), 279.

³³ Wolf Mendl, *Japan's Asia Policy: Regional Security and Global Interests*, (London: Routledge, 1995), 74

international observation team that traveled to Indochina in 1968 and 1970. Its mission was to end the war in Vietnam.

Some argue that due to the US security presence in the region, Japan had no room to maneuver politically. However, we also suggest that Japan hid behind the US to reduce resentment in the region. The legacy of Japanese atrocities during the WWII was still fresh in Southeast Asia. Japan's apolitical façade was a deliberate and cynical strategy.³⁴

During the period from 1967 to 1974, Japan was loyal to the Yoshida and Kishi doctrines which emphasized the "separation" of economics and politics. This strategy served to re-establish its influence in the region and to reinvigorate its economy at home by tapping regional markets and resources.³⁵ The separation of economics and politics also reduced resentment toward Japan in the region. This strategy enabled Japan to achieve its economic targets in the "Great East Asian Co-prosperity Area" goals without paying political transaction costs.³⁶ During this period, Japan's policies were best described by section IV of the policy-matrix. The period ended with riots in Southeast Asia (mainly in Thailand and Indonesia) during Prime Minister Tanaka's travels in 1974. These disruptions revealed the negative feelings toward Japan were not only still present in the region but were also rekindled by economic exploitation.

Was it a real change of Japanese policies, 1975-1989?

The mainstream literature contends that for a number of reasons Japan altered its economic, political, and security policies toward Southeast Asia from the end of the Vietnam War (1975) to the end of the Cold War (1989). First, the US decided to withdraw from the region after its defeat in Vietnam. That left a huge security vacuum in the region intensifying Sino-Soviet competition. The Soviet Union was expanded its influence with enthusiastic assistance from communist Vietnam and its Indochina allies, first Laos and then Cambodia. But Japan was also able to extend its influence in the region.³⁷ And it did so in terms of politics as well as economics. The Tanaka riots left their mark on Japanese policies. The unexpected instability in the region caused Japan to reassert its political role in the region in conjunction with its economic role. The Japanese felt that a failure to express its national identity in a comprehensive fashion would at this point result in a failure to achieve its specific economic goals.³⁸

In the mainstream literature, the combination of Japanese economic and political policy was associated with the Fukuda doctrine. But that was not the whole story.³⁹ Although external factors were important, internal factors were important as well especially the Japanese philosophy of security as set forth in the Yoshida doctrine.⁴⁰

³⁴ Ronald A. Morse, "Japan's Drive to Pre-Eminence," *Foreign Policy*, (No. 69, Winter 1987), 3-4.

³⁵ Kent E. Calder, "Japanese Foreign Economic Policy Formation: Explaining the Reactive State," *World Politics*, (Vol. 40, No. 4, July 1988), 520-1.

³⁶ Alan Rix, *Japan's Economic Aid*, (London: Croom Helm, 1980), 37.

³⁷ Ruth Talpin, "Japanese Foreign Policy towards Southeast Asia," in Richard Grant, ed., *The Process of Japanese Foreign Policy*, (London: Royal Institute of International Affairs, 1997), 82.

³⁸ Wolf Mendl, *Japan's Asia Policy: Regional Security and Global Interests*, (London: Routledge, 1995), 74.

³⁹ Alan Rix, "Japan and ASEAN: More than Economics," in Allison B., ed., *Understanding ASEAN*, (London and Basingstoke: the Macmillan Press, 1982), 5-6.

⁴⁰ Donald C. Hellmann, "Japan and Southeast Asia: Continuity Amidst Change," *Asian Survey*, (Vol. 19, No. 12, December 1979), 1153-4.

We maintain that the Japanese were still practicing the Yoshida doctrine under the guise of the Fukuda doctrine and that the differences were semantic. According to Alan Rix, the Fukuda doctrine “marked no new direction in Japanese policy, while it re-stated Japan’s Southeast Asian diplomacy, it encapsulated 20 years of Japanese experience in the region”.⁴¹

In 1977, on a tour of Southeast Asian nations, Prime Minister Fukuda Takeo first announced the so called Fukuda doctrine in the capital of the Philippines, Manila. It was expressed in the form of three principles to guide Japan’s foreign policy in Southeast Asia.⁴² First, Japan would not become a military power in the region. Second, Japan would promote closer economic, social, political, and cultural ties with ASEAN members seeking equal partnerships with regional peoples based on what it called “heart to heart” dialogues. Third, Japan would pursue constructivist relations with the three communist regimes in Indochina, particularly Vietnam, and would encourage co-existence rather than conflict between all nations in the region. The third principle was perceived to be the first step in reasserting Japan’s political role in Southeast Asia.

The Fukuda doctrine was one of enlightened self-interests based on the recognition that Japan’s growing economic stake in Southeast Asian countries could be threatened by internal instability or by external conflicts with Indochina for example. It was therefore necessary for Japan to bolster economies in the region and to act as a bridge between ASEAN and Indochina. The Fukuda doctrine, as announced by Tsurutani,⁴³ intended to link Southeast Asian development with Japan’s economic development by extending monetary assistance and technical cooperation. As a result, “modernization” in the region remained dependent on Japan’s economic might.⁴⁴ Japan still hoped to enhance regional stability by economic means pursuing an omni-directional foreign policy that theoretically separated economics from politics. But changes in the region during this period allowed Japan to reemphasize its political role in the region which from the beginning was tied to its economic role. The duality of its foreign policy became apparent as Japan more openly was involved itself in government as well as business in Southeast Asia.⁴⁵

Although the Fukuda doctrine declared that Japan would not become a military threat in the region, Japan was nonetheless very influential with respect to the region’s security.⁴⁶ After Vietnam’s invasion of Cambodia, Japan fashioned ASEAN’s stance blaming Vietnam and it increased its aid to Thailand to counter Vietnamese influence. Even though Japan supplied no armament to any nation in Southeast Asia, it was still able to exert its influence by other means including economic aid and military training. The fungibility of aid enabled recipient nations to budget for their own defense. The participation of other nations in defense of the region then limited the amount of money that Japan needed to spend on defense and also fulfilled its promise to be non-threatening.⁴⁷

⁴¹ Alan Rix, "Japan and ASEAN: More than Economics," in Allison B., ed., *Understanding ASEAN*, (London and Basingstoke: the Macmillan Press, 1982), 187.

⁴² Taketsugu Tsurutani, *Japanese Policy and East Asian Security*, (New York: Praeger Publishers, 1981), 52.

⁴³ Ibid.

⁴⁴ Ibid.

⁴⁵ Ruth Talpin, "Japanese Foreign Policy towards Southeast Asia," in Richard Grant, ed., *The Process of Japanese Foreign Policy*, (London: Royal Institute of International Affairs, 1997), 82.

⁴⁶ Fung-wai F. Lai, *Without a Vision: Japan's Relations with ASEAN*, (Singapore: Chopmen, 1981), 25.

⁴⁷ Ruth Talpin, "Japanese Foreign Policy towards Southeast Asia," in Richard Grant, ed., *The Process of Japanese Foreign Policy*, (London: Royal Institute of International Affairs, 1997), 82-3.

Japan's refusal to assume a direct military role in Southeast Asia did not imply any lack of concern over military security in the region. In 1980, the hawkish Prime Minister Nakasone increased Japan's military spending to more than 1% of its GNP.⁴⁸ Given the size of the Japanese economy, this was a tremendous sum. ASEAN countries not only feared the rearmament of Japan. They also feared that more military spending would lead to less development assistance. Furthermore, as Japan assumed responsibility for the defense of sea lanes south to 200 nautical miles from the Philippines, ASEAN countries worried about the resurgence of a militaristic Japan.⁴⁹

Although Japan pretended to be uninvolved in the political affairs of the region, it obviously understood that its economic aid would foster its political influence. In other words, Japan's economic assistance can be viewed as political interference in the affairs of the region.⁵⁰ There was also a change in Japan's perception of ASEAN during this period. Following the consolidation of "ASEAN Sprit" at the Bali summit in 1976, Japan began to consider the organization as an important institution especially with regard to the maintenance of stability and security in the region. Southeast Asia was vital to the Japanese in terms of natural resources, markets, and investments as well as maritime communication. Moreover, ASEAN was an ally that enabled Japan to maintain a balance of power in the region. The members of ASEAN were anti-communist and well-connected with other non-communist states. In spite of this alignment, Japan was frustrated in its attempt to become a regional leader since other countries feared the return of Japanese hegemony.⁵¹

Japan's aid to the region should be put in perspective. In 1988 Japan's Official Development Assistance, ODA, represented 0.32 percent of its GNP, placing it twelfth of eighteen nations on the Development Assistance Committee, DAC, of the Organization for Economic Cooperation and Development, OECD, below the average of 0.35 percent. Japan's ODA represented 19.1 percent of total DAC's ODA, 1 percent less than the top donor, the United States. Along with most of the other Gleneagles Summit group of nations, Japan set 0.7 percent as an ODA/GNP target, but set no target date (neither did West Germany, the U.K. or France). In 1986 Japan ranked twelfth on the DAC list for ODA spending per capita (US \$846.4). Its share of grants (60.7 percent) ranked eighteenth (last on the DAC list). It was ranked seventeenth its grant element of ODA (81.7 percent) second to last. And, Japan's share of technical cooperation was fourteenth at 10.6 percent.⁵²

Although Japan boasted of its aid to the region, it was comparatively modest even from a quantitative point of view. From a qualitative point of view, it was in fact problematic. First, the technical content was kept low to protect Japan's advantage with respect to value added products. As a result, there was little "spin-off" involving the transfer of technology. Second, not only was the proportion of grants to loans low, most of the loans were conditional. They were typically project based and required investment in facilities that would promote Japan's domestic industrial re-structuring. The Japanese maintained a one-

⁴⁸ Japan Defense Agency, *Defense of Japan 1985*, (Tokyo: The Japan Times, Ltd., 1985), 97.

⁴⁹ Robert O. Tilman, *Southeast Asia and the Enemy Beyond: ASEAN Perceptions of External Threats*, (Boulder, Colo.: Westview Press, 1987), 29.

⁵⁰ *Ibid.*

⁵¹ Bhubhindar Singh, "ASEAN's Perceptions of Japan: Change and Continuity," *Asian Survey*, (Vol. 42, No. 2, Mar. -Apr., 2002), 277-8.

⁵² Alan Rix, "Japan's Foreign Aid Policy: A Capacity for Leadership?" *Pacific Affairs*, (Vol. 62, No. 4, Winter, 1989-1990), 468-70.

way pipeline with regard to trade by refusing to import goods even if those goods were produced through projects built with Japanese money.⁵³

Japan enjoyed a huge trade surplus with Southeast Asia. A trading pattern was firmly established with Japan importing cheap raw materials and Southeast Asia importing expensive manufactured goods. So the terms of trade were skewed to Japan's advantage from the beginning. Japanese foreign direct investment, FDI, was focused on the exploitation of cheap labor using the "flying geese" model that consistently placed Japanese firms in a leading role by providing much needed capital and technical expertise. Japan promoted only obsolete industries in Southeast Asia, industries which had already lost their comparative advantage in Japan. This permitted the Japanese to restructure their economy at home concentrating on new industries with greater profit margins.⁵⁴

During the period from 1975 to 1989, Japan used the Fukuda doctrine as its guiding principle with regard to Southeast Asia. It was used to justify its behavior in the region. The Japanese became much more assertive in a political sense. Although the intent of Japan's policy remained the same, the style changed.⁵⁵ Its previously covert political ambitions gradually became overt and specifically expressed. This permitted Japan to effectively respond to regional and international changes and thereby enhance both its economic and political position. The "soft hegemonic" and omni-directional approach, economic, political, and military, security policies, enabled Japan to serve its national self-interest without paying high transaction costs. During this period, Japan's "formal" policies were in a transitional move from section IV to section III in the policy-matrix.

Japan Further Pursues Its "Soft Hegemony" after 1990

Whereas 1975-1989 was a bridging period, 1990-present was a period of consolidation for Japan in terms of its policy of "soft hegemony" in Southeast Asia. Japan expected its position in the region to lead eventually to a permanent seat - on the UN Security Council.⁵⁶

After the War in Vietnam, US involvement in the region decreased and its status as a superpower declined. In the meantime, the involvement of China in the region and its status as a superpower were increasing. Then, after 1990, Japan's economy stagnated.⁵⁷ This prompted Japan to increase its political involvement in Southeast Asia even further. It did so however in the spirit of the "soft hegemony" that it promoted earlier.⁵⁸

In political and security affairs, Japan treated ASEAN as both a region and an institution which could serve Japanese interests. Japan also played ASEAN as a card in its

⁵³ Alan Rix, *Japan's Aid Program: Quantity versus Quality*, (Canberra: Australian Development Assistance Bureau, 1987), 15.

⁵⁴ Walter Hatch, and Kozo Yamamura, *Asia in Japan's Embrace: Building a Regional Production Alliance*, (Cambridge, UK: Cambridge University Press, 1996), 22.

⁵⁵ Chaiwat Khamchoo, "Japan's Role in Southeast Asian Security: "Plus ca Change ...", *Pacific Affairs*, (Vol. 64, No. 1, Spring, 1991), 13.

⁵⁶ Mike M. Mochizuki, "Japan's Shifting Strategy toward the Rise of China", *Journal of Strategic Studies*, (Vol. 30, No. 4, 2007), 740-1.

⁵⁷ Bhubhinder Singh, "ASEAN's Perceptions of Japan: Change and Continuity," *Asian Survey*, (Vol. 42, No. 2, Mar. -Apr., 2002), 279.

⁵⁸ Brian J. McVeigh, *Nationalisms of Japan: Managing and Mystifying Identity*, (Lanham: Rowman and Littlefield Publishers Inc., 2004), 143-5.

balance of power game with China and, to a lesser extent, the US.⁵⁹ Japan's first attempt to play a leadership role in the region was made by its Foreign Minister Taro Nakayama in 1991 in an attempt to form a multilateral security umbrella. But that proposal was rejected by ASEAN regional countries out of fear of Japanese hegemony.⁶⁰ It was also rejected by Japan's closest ally, the US, as the US preferred that Japan work only within the Asian Pacific Economic Cooperation forum, APEC. But Japan's original initiative was eventually adopted in the form of an ASEAN Regional Forum, ARF, in 1994. Although some scholars believe that Japan was playing a constructive role in advocating a multilateral regional institution, other scholars argue that it was following a realist policy in its own national interests.⁶¹ They contend that in 1990s, Japan felt compelled to establish a regional multilateral institution in order to offset the growing power of China. It was impossible to form such an institution in Northeast Asia since South Korea (even excluding North Korea) was vehemently opposed to the possibility of a hegemonic Japan. The extreme fear of power asymmetry in Northeast Asia left Southeast Asia the only other forum for Japan.⁶²

The realist dynamics of Japan's foreign policy were expressed not only in terms of its efforts to set up ARF but also in terms of its negative attitude towards the forum when it failed to produce the desired results. According to Yuzawa, Japan together with the US and Australia provided ARF to pressure China to renounce the use of military force in the region.⁶³ But China played upon ASEAN fears of Japanese and Western interference in their domestic affairs. Since ARF did not conform to Japanese expectations, the Japanese shifted their foreign policy in order to maintain a balance of power with China. The result was a major revision of the guidelines to bilateral defense with the US in 1999.

The deployment of Japanese troops to Cambodia in 1992 did not arouse much concern in ASEAN inasmuch as the operation was under the supervision of the UN. But Japan's support of military operations in Iraq did raise concerns in the region. It was viewed as the first step toward changing Article 9 of the Japanese Constitution renouncing war. Some members of ASEAN also feared the naval presence of Japan in regional waters despite the problem of piracy especially in the Malacca Strait. Some countries felt that Japan was taking advantage of the US war on terrorism to legitimate the projection of military force overseas.⁶⁴

Although Prime Minister Tomiichi Murayama expressed remorse for the suffering Japan inflicted on Southeast Asia during the WWII, subsequent Japanese Prime Ministers nonetheless maintained the practice of visiting the Yasukuni Shrine, a symbol of Japanese militarism.⁶⁵ And, although the Japanese government assured the region of its pacifism, there

⁵⁹ Nobuo Okawara and Peter J. Katzenstein, "Japan and Asia-Pacific security: regionalization, entrenched bilateralism and incipient multilateralism", *The Pacific Review*, (Vol. 14, No 2, 2001), 167-8.

⁶⁰ Benjamin L. Self, "Confidence-building Measures and Japanese Security Policy," in Ranjeet K. Singh ed., *Investigating Confidence-Building Measures in the Asia-Pacific Region*, (Washington, DC: The Henry L. Stimson Center, 1999), 35.

<http://www.stimson.org/images/uploads/research-pdfs/cbmapjapan.pdf>

⁶¹ Takeshi Yuzawa, "Japan's Changing Conception of the ASEAN Regional Forum: from an optimistic liberal to a pessimistic realist perspective", *The Pacific Review*, (Vol.18, No.4, 2005), 473

⁶² Ralf Emmers, *Cooperative Security and the Balance of Power in ASEAN and the ARF*, (New York: Routledge Curzon, 2003), 17-19.

⁶³ Takeshi Yuzawa, "Japan's Changing Conception of the ASEAN Regional Forum: from an optimistic liberal to a pessimistic realist perspective", *The Pacific Review*, (Vol.18, No.4, 2005), 468.

⁶⁴ Michael J. Green, *Japan's Reluctant Realism: Foreign Policy Challenges in an Era of Uncertain Power*, (New York: Palgrave, 2001), 29.

⁶⁵ Bhubhindar Singh, "ASEAN's Perceptions of Japan: Change and Continuity," *Asian Survey*, (Vol. 42, No. 2, Mar. -Apr., 2002), 280-1.

was at the same time an increasing sense of nationalism nurtured by Japanese elites. There was for instance a resurgence of sentiment regarding such symbols as the *Kimigayo* (the national anthem) and the *Hinomaru* (the national flag).⁶⁶ Japan's growing nationalism was of course nothing compared to its past militarism. But its renewed military might and economic power still aroused worries among the nations of Southeast Asia.⁶⁷

In the area of economic cooperation, Japan enhanced its influence by providing more grants and more loans as well as by increasing its foreign direct investment, FDI, and by increasing its exports to the region. In the first period, from 1967 to 1974, Japan focused on exploitation of raw materials. In the second period, from 1975 to 1989, it focused on the exploitation of labor using its "flying geese" model.⁶⁸ In the second period, Japan emphasized the restructuring of its domestic industries whereas in the third period, it emphasized a deeper labor division using not only the horizontal pattern of inter-industry division but also the vertical pattern of intra-industry division. Both patterns were based on the "flying geese" model whereby the Japanese held the absolute advantages of capital and technology while subordinate nations suffered from the terms of trade.⁶⁹ According to some scholars,⁷⁰ the "flying geese" model was just another aspect of the Japanese "keiretsu" system which tied subordinates to leading companies during periods of consolidation. That model and system made it difficult if not impossible for Western nations to penetrate the region's market. Southeast Asia was tied to Japan not only in terms of technological dependence but also in terms of management style.

On one hand, we cannot deny the fact that the "flying geese" model has once in East Asia and still at present contributed to the economic development of East Asia and Southeast Asia, respectively. This model can be described as a bright example of neo-classical economics' assumption of comparative advantages that helps Southeast Asia to exchange its rich natural resources and abundant labor for rare capital and technology from Japan.⁷¹ On the other hand, the other side of the coin should be also taken into scrutiny. Taking Japan's comprehensive goals into account, the "flying geese" model helps Japan's not only soft power of eco-socio might but also high politics influence to prevail in the region.⁷²

In its turn, such influence consolidates and even pins down the region against the once successful and seemingly self chosen economic model. This over-dependence on one development model might lead to a situation that recently termed as "middle income gap".⁷³

⁶⁶ Brian J. McVeigh, *Nationalisms of Japan: Managing and Mystifying Identity*, (Lanham: Rowman and Littlefield Publishers Inc., 2004), 149.

⁶⁷ Arpita Mathur, "Japan's Contemporary Nationalism: Trends and Politico-Security Drivers", *Strategic Analysis*, (Vol. 31, No.1, 2007), 113.

⁶⁸ Walter Hatch, and Kozo Yamamura, *Asia in Japan's Embrace: Building a Regional Production Alliance*, (Cambridge, UK: Cambridge University Press, 1996), 22-4.

⁶⁹ Joseph E. Stiglitz, *Making Globalization Work*, (New York: W. W. Norton & Company, 2006) 33-5

⁷⁰ Walter Hatch, and Kozo Yamamura, *Asia in Japan's Embrace: Building a Regional Production Alliance*, (Cambridge, UK: Cambridge University Press, 1996), 22-4.

⁷¹ Kiyoshi Kojima, "The "flying geese" model of Asian economic development: origin, theoretical extensions, and regional policy implications", *Journal of Asian Economics*, Vol. 11, No 4, 2000, 375-401.

⁷² *Kazuhiko Togo*, Japan's Foreign Policy, 1945-2009: The Quest for a Proactive Policy, *Leiden: Brill Academic Publishers*, 2010, 98-9.

⁷³ The Economist, "Be Aware of the Middle Income Trap", Jun, 23rd, 2011, <http://www.economist.com/node/18832106>

This trap has held down not only middle income nations like Malaysia,⁷⁴ but also developed ones like South Korea.⁷⁵

Although the historical advantages and contributions of the East Asia economic model and/or the “flying geese model” in particular has widely been accepted in the literature; necessary and deeper insights are still expected to be taken when adopting and clinging oneself to a rigidly established development strategy.⁷⁶ In fact, a call for changes, in favor of the subordinated countries to reduce their dependence on rich nations among which being Japan, is widely voiced out internationally.⁷⁷

In the period of 1990s, Japan ranked first in official development assistance by Organization for Economic Cooperation and Development. Also in this period, Japan’s reputation and image as an international donor was more positively assessed by Southeast Asian recipients. Japan could better improve the quality of its ODA by increasing grant proportion and somewhat reducing conditional loans which were severely criticized by Southeast Asian countries in the previous decades.⁷⁸ Japan was also perceived as more pro-environmental, pro-educational with higher proportion of ODA pouring into such projects.⁷⁹

However, in the first decade of 21st century, due to its economic recession and public doubts about the effectiveness of development assistance programs, Japan’s foreign policy aspirations have been hindered by declining public support for ODA. Japan gives out only about 60 percent of the money that it did in the 1990s. Japan also ranks low in humanitarian aid, 18th of 23 OECD countries. Based on pro-poor aid, trade, investment and environmental policies, Japan ranked 21st. In 2006, Japan gave \$11.6 billion in foreign aids, a drop of 11.7 percent from the previous year. Japan’s ODA budget has been cut in recent years in order to deal with the deficit crisis. ODA spending in 2000 was \$13.1 billion, while the 2007 one was reduced to around \$8 billion, the lowest since 1989.⁸⁰

During and after the ASEAN financial crisis of 1997-1998, Japan was praised as the biggest financial supporter of the region. Prime Minister Miyazawa, 1998 October, announced the so-called Miyazawa initiative promising thirty billion USD to the six needy countries. Some nonetheless criticized Japan for being too slow in responding to requests for help.⁸¹ China appeared in a better light since it provided one billion USD to Thailand, the

⁷⁴ Next Big Future, “Malaysia Stuck in Middle Income Trap”, Jan, 12, 2011. See more at:

<http://nextbigfuture.com/2011/01/malaysia-stuck-in-middle-income-trap.html>

⁷⁵ “Can Asia Avoid the Middle Income Trap?”, April, 8, 2011. See more at:

<http://stgallenmba.ch/evenett/2011/08/04/can-asia-avoid-the-middle-income-trap/>

⁷⁶ Fumitaka Furuoka, “Japan and the “Flying Geese” Pattern of East Asian Integration”, *Eastasia.at*, Vol. 4, No. 1, October 2005. See more at: http://www.eastasia.at/vol4_1/article01.htm

⁷⁷ Joseph E. Stiglitz and Andrew Charlton, “The Development Round of Trade Negotiations In The Aftermath of Cancun” A Report for the Commonwealth Secretariat prepared with the Initiative for Policy Dialogue (IPD) (Paperback - January 30, 2005). 7-8.

⁷⁸ Asia Program Special Report, Japanese ODA at 50: An Assessment, February, 2005. Available at:

<http://www.wilsoncenter.org/sites/default/files/AsiaReport128.pdf>

⁷⁹ Nicole Armitage, “From crisis to Kyoto and beyond: The evolution of environmental concerns in Japanese official development assistance”, Nagoya University, November 2009. Available at: <http://www.gsid.nagoya-u.ac.jp/bpub/research/public/paper/article/176.pdf>

⁸⁰ Facts and Details, “Japan and The World: History, APEC and G-8 Meetings, The U.N., Foreign Policy, Development and Aid”, Last updated July 2011, Available at:

<http://factsanddetails.com/japan.php?itemid=827&catid=22&subcatid=149>

⁸¹ Bhubhindar Singh, “ASEAN's Perceptions of Japan: Change and Continuity,” *Asian Survey*, (Vol. 42, No. 2, Mar. -Apr., 2002), 281.

neediest nation, almost immediately. China's refusal to devalue its currency was also much appreciated by ASEAN countries.

During Koizumi's term, Japan proposed the Japan-ASEAN Comprehensive Economic Partnership and ASEAN agreed in November of 2002. This was widely viewed as a move to counter China's proposal to establish a free trade agreement, FTA, with ASEAN in 2001.⁸² After China signed the Treaty of Amity and Cooperation in Southeast Asia (TAC), in June of 2003 Japan responded by acceding to the TAC in December of that year giving its support to the building of an "East Asian Community." When the states of ASEAN plus Three (China, Japan and South Korea) considered holding East Asia Summits to promote regional cooperation, China opposed any wider participation. But when Japan succeeded in including Australia, India, and New Zealand, China lost its enthusiasm for regional summits. One was left to conclude that Japan's tactics were designed to promote its leading position in the region rather than the collective interests of ASEAN.⁸³

During the most recent period in Japan-ASEAN relations, there were fundamental changes in regional and international political economy. The end of the Cold War, the rapid rise of China, and the declining presence of the US in Southeast Asia required Japan to strengthen its ties to ASEAN and expand its leading role. The importance of Japan-ASEAN relations is evident in all areas: economic, social, cultural, political, and military. The omni-aspect made relations between Japan and ASEAN more important than ever. But the nations of there region maintained their suspicions of Japan as a hegemonic and even militarist power. As a result, Japan-ASEAN relations were characterized by section III of the policy matrix. Better efforts on the part of Japan were necessary to achieve the goals of section I: higher political content and greater mutual trust.

Conclusion

This paper concludes that the mainstream IR literature fails to depict and explain the nature, the authentic dynamics underlying Japanese Southeast Asian policies since 1967 or even since the WWII. The reason is that much of the literature conservatively clings to parsimonious approaches of either realism, liberalism or constructivism to build their assumptions and analyses. That leads to incomplete understanding of Japan's actual strategies in the region.

We assert that only a balanced vision which takes a compromising, complementary combination of the three main paradigms can help to understand not only the actual on-ground policies of the Japanese but also the underlying value which has been guiding their policy making and implementing all along the current history.

While the mainstream literature tends to conclude that Japanese policies are mainly a result of Japanese response to both domestic and external changes in regional, international arenas. This paper concludes that internal factors of cultural values, national identity and comprehensive, basic interests, etc, hold a greater importance. This view comes to another conclusion that both Yoshida and Fukuda doctrines are not a passive product made by the Japanese under historical and world politics pressure. Rather, they are conscious, deliberate outcomes made by the Japanese in actively responding to external challenges.

⁸² Mike M. Mochizuki, "Japan's Shifting Strategy toward the Rise of China", *Journal of Strategic Studies*, (Vol. 30, No. 4, 2007), 741-2.

⁸³ Ibid.

This view goes on to put that Japanese nationalism, which has been expressed in its new form of the so called Japanese “soft hegemony”, is the philosophy to direct Japanese minds and actions. This philosophy was initialized by Prime Minister Yoshida, also known as Japan’s “GNP nationalism”, which was later developed by Prime Minister Fukuda in his Fukuda doctrine. The three periods of Japan-ASEAN relations have been developed under this fundamental philosophy. It helps to make a flexible, tactical, omni-directional combination which aims at maximization of Japanese fundamental national interests in form of comprehensive capability expansion. It also aims at re-gaining the image of a divine nation of Japan, to get the world’s respect, while avoiding heavy costs of conducting high-key politics of aggressiveness.

With this “soft hegemonic” value, Japan conducts phenomenally liberal, constructivist policies of economics, politics, security, etc, to not only gain collective support of the region, but also get the regional nations to be deeply dependent on Japan, in favor of Japanese primacy. It seems, to some extent, Southeast Asian nations are willing to put themselves under a moderate Japanese influence. Of course, this willingness never comes from their perceptions of a “benign” Japan. Rather it would be that they have no better choice but cooperate with Japan to compensate their chronic shortage of capital and technology. Rather, it would also come from their realist thinking to take advantage of Japan to balance against China and to some extent the US. The enduring hegemonic dominance by the US, the threat of a new hegemonic power coming from China, are also all clear in Southeast Asian minds.

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STRESS AND COPING STRATEGIES OF UNIVERSITY EMPLOYEES IN BUGUIAS, BENGUET, PHILIPPINES

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Abstract

Stress affects employees' productivity if not recognized early and managed properly. The study delved into stress and coping strategies of employees of Benguet State University - Buguias Campus (BSU –BC). It ascertained the sources and level of stress; its effects along with physical, emotional, psychological, social and spiritual aspects; the coping strategies used and its extent of utilization. It also explored the correlation between the demographic profiles and stress and coping strategies. Thirty-five (35) teaching and sixteen (16) non-teaching employees were the participants of the study. Using descriptive and correlational method and a validated research instrument, results revealed that the stress experienced are work-related and individual –related and are at a moderate level. Likewise, the effects of stress were experienced at times and affect them slightly. To cope with such stressors, the employees identified and experimented with coping strategies to withstand pressures and demands. Finally, correlations were found between the profiles and stress and coping strategies.

Key words: Stress, Coping Strategies, Stressors

Introduction

Stress knows no barriers and is impossible to circumvent. People from all walks of life; the rich and the poor, women and men, the young and old, employed and unemployed, highly paid and minimum wage earners are not resistant to it. It is not a new experience and is perceived as modern society's illness (Baqtayan, 2015). The World Health Organization further dubbed stress as the Health Epidemic of the 21st Century because it has become pandemic. According to Humphrey (1992), stress can be considered as any factor acting internally or externally that makes it difficult to adapt and induces increased effort on the part of the person to maintain a state of equilibrium. Several studies also claimed that people need stress but not too much and not too long. As Hans Selye emphasized, complete freedom from stress is death. Henceforth, in order not to suffer its major upshots, one must understand its nature in order to manage it efficiently and effectively.

Stress and Stressors

Presently, stress levels around the world are sky - rocketing and has been recognized as a worldwide major challenge to worker's health and the organization as well (International Labor Organization, 1986, 1992 & WHO, 2003). Several studies showed that work is only one of a number of possible areas or aspects of life that can give rise to the experience of stress and ill-health (e.g., Goldberg & Novak, 1992; Surtees & Wainwright, 1998). According to Figueroa (2007) as cited by Pestano, Avena & Bejar (2009), stress has become a staple in every workplace and every worker at some point, felt the pressure of work-related stress.

For American adults, job stress is the major source of workers' stress (Fink, 2016 & American Institute of Stress, 2018). In Australia, a survey conducted in 2017 revealed that most or 73 percent of workers are stressed about their work and they are 2 ½ times more likely to look for a new job than those who are not stressed (Tasker, 2017). Meanwhile, data gathered in Chile in 2011 reported that 27.9 % of workers and 13.8% of employers reported that stress and depression were present in their enterprises.

Moreover, in 2014, the ILO revealed that 32.4 percent of workers in Japan experienced strong anxiety, worry and stress associated with their work. Similarly, work is the primary trigger of stress for employees in Asia-Pacific. Thailand (75%) had the highest number of respondents followed by China (73%), Vietnam (71%), Indonesia (73%), Singapore (63%), Hong Kong (62%) and Malaysia (57%) (CFO Innovation Staff, 2012 & Rappler, 2016). Amble (2006) further adds that more than half of executives worldwide expressed greater stress and those in Asia's booming tiger economies felt the greatest pressure. Taiwan topped the league table of countries to report rising stress levels followed by China and the Philippines.

Specific to the Philippines, the country follows the Asia-Pacific trend with low pay as the primary cause of employee's stress (Rappler, 2016). Although Filipinos are known to be resilient, they are still not immune to stress. According to Tan (2006), rural or urban, Filipinos face numerous stressors around work, livelihood and family. They worry about low salaries (Tan, 2006; Mingoa, 2017), traffic jams, jobs and income imbalances, unclear job expectations (Rappler), increasing prices of basic commodities and urbanites go berserk with tyrannical bosses and vicious gossipy office-mates among others. In an online survey conducted in 2017, 23% of Filipinos cited their job or studies as their main source of stress. Others blamed it on job demands such as deadlines and being behind schedule, while some attributed it to their co-workers. Other reasons that cause stress for Filipinos include personal relationships, life changes/crisis such as pregnancy, death of a loved one, and health reasons (Ancis, 2017).

Sources of Stress

Work stress has been identified as a key factor in delivering quality services and becomes a growing problem around the world. According to Tasker (2017), it arises when work demands exceed the person's capacity and capability to cope. However, it is also important to note that occupational stress can either be positive or negative. Kung & Chan (2014) describe positive stress (eustress) as responses in an adaptive way. It can serve as a catalyst that can fuel employees to finish the task at hand. Negative workplace stressors on the other hand pertains to excessive pressures that exceeds the persons capability to cope (Iyi, 2015, Kung & Chan, 2014) and can interfere with employees' health and productivity.

According to the APA (2011), the top workplace stressors found out by research findings include low salaries, heavy workloads, lack of opportunity for growth and advancement, unrealistic job expectations and job security. Additional on-the-job stressors include lack of support; lack of communication (Prachi, 2010), no appreciation/recognition, (Reevy & Deason, 2014; Gupta, 2008; Tan, J.S 2017)), no feedback, career and job ambiguity, unclear policies, no sense of direction, mistrust, unfairness and office politics, pervasive uncertainty, random interruptions, supervisor demands and the treadmill syndrome (Uma, 2011).

Other stressors acting on employees are organizational factors which include discrimination in pay/salary, strict rules and regulations, peer pressure, centralized and formal organization structure, career development issues, lack of employees' participation in decision-making and excessive control (Prachi, 2010, Pestaño et.al 2009 and APA, 2011). For individual – related stressors, work demands and work flexibility are recognized to be important determinants. Equally, inherent personality traits such as being impatient, aggressive, rigid, always feeling time pressure and personal life interfering during work hours, financial problems, and sudden career changes among others, contribute to stress. Furthermore, family works, issues and demands are stressors that can also add up to employees' stress (APA).

In the school setting, stress usually emanates from excessive workloads and hours of work (Tan, 2017), lack of control and autonomy, lack of solidarity and morale, problems with hygiene and security, excessive paper works and administrative duties, mundane office tasks (Pestaño et.al, 2009); discrimination/workplace bullying and lack of sufficient and up to date teaching material, equipment, and class rooms (Amble, 2006).

Effects of Stress

Research studies have shown that workplace stress impairs a worker's ability to function intellectually, emotionally, and in his or her interactions with others. Absenteeism and *presenteeism* are very common among stressed workers. According to Health Advocate Inc. (2009), an estimated one million workers miss work each day and about 60% of workers reported losing productivity due to stress. Stress also affects the body in various ways. Serious physical symptoms of stress are usually manifested by increase of blood pressure, migraine/headaches (Mingoa), increase of heart rate, sweating, hot and cold spells, breathing difficulty, muscular tension and stomach problems (Pestano, Baqutayan). Left untreated, it can increase the risk for developing chronic and costly diseases. Other physiological responses to stress include deteriorating health, accident prone, improper eating habits (over-eating or under-eating), excessive smoking and drinking, and sleeplessness (Blumenthal, 2003 & Baqutayan).

In addition, managing stress through unhealthy coping strategies brings consequences to the emotional and social aspect of the individual. Emotional effects of stress may consist of anger, anxiety, (Pestano et.al, 2009), depression, lowered self-esteem, poorer intellectual functioning, nervousness, irritability, resentment of supervision, job dissatisfaction, impulsive behaviors and difficulties in communication are just some of the few effects. As to the social aspect, it can result to drug or alcohol abuse, smoking, isolating oneself from others or social withdrawal, sleeping too little or too much, negatives self – image, and loss of sense of humor; absenteeism and presenteeism, escaping from work responsibilities and arriving late or leaving early (Leka et.al; Cox, 2003).

Furthermore, stress affects a person's psychological processes which can lead to difficulty or fear of making decisions, forgetfulness, hypersensitivity and mental blocks. According to Health Advocate Inc., the hallmark signs that workers are experiencing mental duress include poor concentration, short temper, job dissatisfaction and low morale which hinder them to function up to par. Mills, Reiss & Dombeck (2008) further claimed that psychological effects of stress among others include hostility, aggressive feelings and behaviour, decreased concern with punctuality, reduced work efficiency or productivity, lying or making excuses to cover up poor work, excessive defensiveness or suspiciousness, social withdrawal and isolation. With reference to the spiritual aspect, Sepamaki (2013)

claimed that spiritual crisis brought by stress can be manifested by difficulty expressing love, lack of joy, no peace, no patience, less kind and good, less gentleness and lack of self-control.

Demographic Variables and Stress

Age cannot be ignored when associated to stress and coping strategies. Several researches have claimed that age influences responses to stress. In the study conducted by APA in 2015, findings showed that millennials suffer higher levels of stress than any other age group. Among Filipino teachers, younger ones tend to have higher levels of stress than the older ones (Mingoa). Most studies further show that older adults differ in terms of approaches to coping as compared with younger adults. According to Iyi (2015), aged workers are better managers of stress while younger ones are seen to be more resilient and have more endurance to stress. In contrary, Monteiro, Balugon & Oratile (2014) claimed that elderly adults are perceived to have less control over their environment than adults, which may adversely affect their coping. Additionally, Nauert (2010) in his study showed that there is no significant relationship between stress levels and chronological age.

Moreover, while it may be sensitive to compare gender difference with regard to stress and coping, according to Mckeand (2016), it is something that cannot be ignored. Historically, women report higher levels of stress than men. Several researches have supported that females experience greater stress than males (Thawabieh&Qaisy, 2012), and that there are differences in the types and levels of stress (Sulaiman, Hassan, Sopian, & Abdullah, 2009). Female stressors include social anxiety (Wade, Jacobsen, & Forste, 2011), money and the economy while level of financial support (Thawabieh &Qaisy, 2012) work and conflict (Misra& Castillo, 2004) are major male stressors. In addition, women subjectively experience more stress than men and consistently report more physical health symptoms as well as emotional symptoms (Juster, 2009 and APA). For working women, care giving and balancing work/life issues is a significant stressor. In contrast, Ugwuja (2009) claimed that men seem to be more stress prone since they are more likely to indulge in activities that add stress like alcoholism and smoking.

Since men and women reported different reactions to the sources of their stress, it is also inferred that their coping strategies differ significantly. Women are likely to read, eat and report more stress management activities while men say they play sports, listen to music and exercise. Mckeand (2016). Sukhadeepak (2006) as cited by Ugwuja (2009) further claimed that women are more adept at handling stress because of their coping mechanisms. As an example, women are far more likely connect with other people and turn to God for sanctuary than males (McKeand, 2016).

Civil status also appears to have influence on stress and coping with stress. According to the APA, married women report higher levels of stress than single women and they feel more emotional than single women. On the other hand, single women are more likely than married women to say they feel they are doing enough to manage their stress. Gupta (2008) further claimed that the rise of families with both partners are earning and the increasing female participation in the sphere of employment has transformed the ways in which couples manage work and family responsibilities in today's society. On the contrary, Davis – Roberts (2006) claimed that singles experienced higher levels of stress due to role insufficiency and role boundary. Moreover, in the study of Pestaño et.al, their findings revealed that civil status does not make a significant difference on stress response.

As to length of service, while some reported increased burnout among older workers with many years of service, others found burnout more common among younger and inexperienced workers. Pestaño et.al further claimed that younger employees respond to stress more frequently than older employees while employees with more than ten years of service may have mastered the art of managing stress. As Iyi (2015) puts it, more experienced workers are better managers of work place stress. Although burnout was higher in the younger workers and in those with fewer years of service, according to Tan, J.S (2017), studies showed that the difference was not statistically significant.

Stress is also a common phenomenon for all university across all disciplines (Gmelch et.al, 1986, Tan, J. S, 2017). Several studies have already established that teaching is considered as one of the most stressful occupations (Pestano, et. al; Beers, 2012, Betonio, 2015 & Tan, 2017) and teachers' susceptibility to burnout is relatively high. Studies exposed that workload, work – life imbalance; lack of resources and recognition, lack of support and the high expectations set for teachers are some of the perennial sources of teachers' stress. As Beers (2012) supplements it, some of the greatest challenges with regards to teaching usually occur during the early stages of one's career.

Non – teaching position at present is also becoming stressful as compared to teaching position. Numerous studies showed that both general and academic staff were experiencing more stress than they did 5 years ago (Gillespie, Walsh, Winefield, Stough, Dua, 2001 & Davis-Roberts, 2006). In a study conducted in Australian universities, academic staff experienced greater levels of stress than did general staff and stress was due to workload, poor management practices, job insecurity, and insufficient recognition and reward (Davis-Roberts,). In the Philippines, Pestano et.al in their study among non teaching staffs, findings showed that the mundane tasks of non teaching employees contributes to stress and possible stress injuries.

In connection with salary, several studies assert that low paid workers have higher levels of stress than the higher paid ones. According to Psychosomatic Medicine and other research sources, those in lower socioeconomic levels experience greater levels of stress and experience more stress-related health problems. On the contrary, higher-powered jobs are more prone to stress considering the responsibilities associated to it. Sharma& Kaur (2013) further claimed that employees with higher salary experience six times role stress as compared to those who are earning a lower income. Moreover, higher-paying jobs bring greater personal control and can make workers choose healthier choices leading to decrease stress (Cohen et.al, 2006).

Coping Strategies

Coping refers to the ways that people respond to and interact with problem situations. It is a very complex process that varies according to many variables such as the situation, the evaluation of the situation, and the resources available (Feldman, 2008). As emphasized by Hans Selye, it is the person's reaction to stress that can harm him and not stress per se. Across all groups, pressures and demands can be better managed by those who can recognize the causes of their stress and willing to make adjustments in order to develop greater resiliency to it.

There are many known strategies of managing everyday stress and it is believed that the best management practice for stress is adopting healthy coping strategies. According to Iyi (2015), the first step to effective stress management is to understand oneself better and to

appreciate what constitute stress and how one reacts to stressful situations. Rachel (2017) further supports that stress management starts with identifying the sources of stressors in life. Secondly, an individual must replace unhealthy coping strategies with healthy ones and practice the 4 A's of stress management which include avoiding unnecessary stress, altering the situation, adapting to the stressor and accepting the unchangeable.

Generally, there are two types of strategies that have been assessed by almost all coping measures developed in the past few decades (Parker & Ender, 1996 & ILO). Problem-focused coping aimed at doing something to alter the source of stress. By contrast, emotion-focused coping aimed at managing the emotional distress that is associated with the situation (Baqtayan).

Regardless of the sources of stress, strategies to manage it are varied. To cite few examples, physical coping may include physical movements like sports activities; emotional coping may entail sharing and creative expressing of feelings; for social coping, it may include activities involving one's support systems while spiritual coping involves the use of religious belief and practices in the facilitation of stressful situation (Tan, 2017). It includes using prayer, meditation, reading the bible and other religious activities (Mill, Reiss & Dombeck (2008). According to Adams (2014), prayer can literally interrupt the experience of chronic stress with moments of peace and renewal. Meditation has also been linked to reduced anxiety, while participation in a spiritual or religious community has been shown to be related to reduced stress by reducing the sense of being alone and helpless in the face of major stressors.

Nonetheless, no single method works for everyone or in every situation. Coping strategies used by one person might not be suitable to another person and differ from situation to situation. Anyhow, every individual must try to find out flexible coping strategies that can bring about positive results and can assist them effectively as they traverse stressful situations.

Workplace stress is not unusual in Benguet State University – Buguias Campus. The dawn of new educational reforms that was initially introduced by the Commission on Higher Education (CHED) is one of the instances that highlighted stress and anxiety among the employees and challenged their coping abilities. At some point, the experienced pressures and demands resulted to strained interpersonal relationships and significantly affected the employees' health status. Consequently, *presenteeism* or reporting to work but not functioning up to one's capability is common among the employees in the campus. This is of a particular organizational concern that should not be taken lightly for it can result to poor quality of work, susceptibility to mistakes and strained relationships. As the Health Advocate Inc. points out, presenteeism today can turn into disability tomorrow.

Although the administration is cognizant that employees need to engage in physical and mental program to sustain workers' efficiency as per Civil Service Commission Memorandum Circular No. 8 s. 2001, the campus does not have an established program to assist the employees as they traverse stressful situations. Although seminars on stress management and wellness activities were conducted for the past years, they were not sustained and followed-up.

Literatures reviewed clearly indicated that workplace stress affects workers' productivity and predisposes them to stress-related disorders when left unmanaged hence,

the study. This study aimed to provide localized view of stress and coping strategies in the campus. Specifically, it ascertained the levels of stress in terms of work – related, individual-related and family - related factors and the effects of stress on physical, emotional, psychological, social and spiritual aspects. The study further explored the coping strategies utilized as to physical, emotional psychological, social and spiritual dimensions and its extent of utilization. Lastly, it sought to find out if correlations exist between the demographic profiles and stress and coping strategies.

It is hoped that the result of the study will provide baseline information about stress and coping in the campus so that administrators and educational leaders of Benguet State University will give more attention to workplace stress. Likewise, it will serve as an eye-opener for the administration of BSU –Buguias Campus to take proactive interventions by developing wellness policies and revitalized employees' wellness programs. Finally, results of the study will be beneficial to the participants because it will enable them to recognize their sources of stress and assess potential coping strategies to experiment on.

Methodology

The study made use of the quantitative research design specifically, descriptive and correlational method. Descriptive design was used to define the levels of stress encountered, its effects along with the five dimensions and the coping strategies as well as its extent of utilization. The correlational method on the other hand was used to explore if relationships exist between the participants' demographic profiles and stress and coping strategies.

As to the locale, it was conducted at Benguet State University - Buguias Campus, a public educational institution located at Loo, Buguias, Benguet, Philippines and one of the satellite campuses of Benguet State University. Participants of the study involved thirty-five (35) teaching and sixteen (16) non-teaching permanent employees and a validated questionnaire was used as the main data gathering tool

Profile of the Participants

| Profile | | Frequency | Percentage (%) |
|---------------------------|-----------------------|-----------|----------------|
| Sex | Female | 24 | 47.1 |
| | Male | 27 | 52.9 |
| Civil Status | Single | 7 | 13.7 |
| | Married | 39 | 76.5 |
| | Widowed | 5 | 9.8 |
| Age | 20-30 yrs. Old | 7 | 13.7 |
| | 31-40 yrs. Old | 18 | 35.3 |
| | 41-50 yrs. Old | 8 | 15.7 |
| | 51- 60 yrs. Old | 13 | 25.5 |
| | 61 yrs. old and above | 5 | 9.8 |
| Job Position | Teaching | 37 | 72.5 |
| | Non-Teaching | 14 | 27.5 |
| Length Of Service | 0-10 yrs. | 31 | 60.78 |
| | 11-20 yrs. | 4 | 7.8 |
| | 21 yrs. and above | 16 | 31.4 |
| Net Monthly Take Home Pay | 5,000 and below | 15 | 29.4 |
| | 5,001 - 10,000 | 17 | 33.3 |
| | 10,001 - 15, 000 | 7 | 13.7 |
| | 15,001 and above | 12 | 23.5 |

Data gathering was done personally with interviews to extract detailed information and elucidate the responses. Data gathered were subjected for analysis using descriptive and inferential statistics. Frequency and percentage was used to treat the demographic profiles of the participants while weighted mean was used to treat the levels and effects of stress and the extent of utilization of coping strategies. To test for the correlation between the demographic profiles and stress and coping strategies, Spearman rho was used using Statistical Package for the Social Sciences (SPSS) 20.

Results and Discussions

This chapter presents the findings and discussions pertinent to the study.

Table 1. Level of Stress

| Stressors | Mean | Descriptive Equivalence |
|---|-------------|--------------------------------|
| Work Related Stressors <ul style="list-style-type: none"> • <i>Bossy</i>”, controlling or demanding management style • Inadequate pay/benefits | 3.81 | Very Stressful |
| Individual Related Stressors <ul style="list-style-type: none"> • Financial problems • Life crises issues | 3.27 | Moderately Stressful |
| Family Related Stressors <ul style="list-style-type: none"> • Poor health of family members • Marital problems | 2.18 | Fairly Stressful |
| OVER-ALL | 3.09 | Moderately Stressful |

Findings revealed that in general, stress encountered in the campus is at a moderate level which could be associated to the nature of work and employees’ responses. Work – related stressors are the major sources of stress and were perceived to be very stressful. It implies that stress is indeed always present in every workplace and the participants recognized that their work contributes to their stress and. *Bossy*, controlling or demanding management style ranked first, followed by inadequate pay/benefits. Working with demanding or bossy superiors, especially during school activities or when meeting deadlines give the employees the feeling of not in control on their tasks. Meanwhile, the participants still believe that the administration should apportion other benefits to help defray the cost of their daily expenses hence; they find inadequate benefit as very stressful. These affirm the claims of Newstrom (2001) and Ancis(2017) that autocratic supervisors can cause job stress while low pay or insufficient salary is the primary cause of employee stress in the Philippines (Rappler, 2016, Mingoa & Ancis) and the number one reason for job stress globally (APA).

For individual - related stressors, they were rated as moderately stressful and imply that the employees recognized personal issues as added sources of stress but still manageable. Financial problem is the topmost source and is associated to high levels of debts, loans and low savings among the employees. Having financial obligations to pay every month apart from sustaining daily basic needs is no doubt a very taxing situation. The finding affirms the assertions of Ancis that lack of budget and financial uncertainty are stressors for most people in the workplace. Moreover, life crisis issues such as death of a loved one and hospitalization of family members were also recognized as very nerve-racking and can interfere with their work performance if not manage as it should be.

Regarding family - related stressors, it was recognized to be fairly stressful. Although poor health of family members (which entails balancing time for work and time for care giving) and marital problems were recognized, it still imply that such stressors are very much manageable. This can be attributed to the fact that Filipinos have close family ties which indicate a strong source of support system that allows them to withstand problems and other forms of crises. The result opposes the findings of Mendoza (2013) that being an all-around super person is too stressful and can cause imbalance, burnout and can make a person forget about his plans and goals.

Table 2. Effects of Stress

| Effects | Mean | Descriptive Equivalence |
|--|-------------|--------------------------------|
| A. Physical Effects <ul style="list-style-type: none"> • Have a hard time sleeping during the night • Do not have energy to report to work and • Tend to lose ones appetite | 2.74 | Sometimes Experienced |
| B. Emotional Effects <ul style="list-style-type: none"> • Easily get irritated, moody, and easily react emotionally than they used to • Find it hard to make sound decisions | 3.19 | Sometimes experienced |
| C. Psychological Effects <ul style="list-style-type: none"> • Disorientation to school policies and activities • Having difficulty in concentrating | 2.82 | Sometimes experienced |
| D. Social Effects <ul style="list-style-type: none"> • Prefer to be alone • Find it difficult to deal with colleagues and superiors | 2.65 | Sometimes experienced |
| E. Spiritual Effects <ul style="list-style-type: none"> • Experience a sense of inner emptiness | 2.16 | Seldom Experienced |

It was revealed in the study that the effects of stress on the four aspects are sometimes experienced while spiritual effects are rarely felt. Although the effects are not much manifested, there is still a need to pay attention to the employees' holistic well-being to sustain workers' efficiency. Having a hard time sleeping during the night, no energy to report to work and tend to lose their appetite were the top most recognized effects and bear close association with one another. Having difficulty sleeping during the night results from thinking of their problems over and over again. As a consequence, they feel tired the next day and lack energy to report to work. In the long run, tend to lose their appetite. This is in congruent with the assertions of Prachi that having a hard time in sleeping and loss of appetite are the long term effects of stress on the physical structure of person. As a consequence, it drains a person's energy thereby, affecting his work performance and productivity.

As to the emotional effects, being irritable and mood swings are the most common manifestations of pent up stress which further affects the decision - making ability of the employees. When stress takes its toll, they feel less motivated and become complacent in their work. Others also blame their colleagues or themselves for their life's stress. The results agree with the study of Robinson et. al (2017) which posits that a person who is under emotional stress finds himself irritable and moody. Losing self-confidence is also a worn effect of emotional stress that limits one's trust in his capacity often results to negative self-image.

With regard to the psychological effects, the participants perceived the indicators as sometimes experienced and suggests that the effects are under their control although affects

them slightly. Disorientation to school policies and activities ranked first followed by having difficulty in concentrating. Pent up stress tends to shift their focus on one thing to another which makes them become disoriented and have difficulty concentrating. The findings support the contention of Prachi that chronic stress makes a person more vulnerable to poor memory, thinking irrationally, increase anxiety levels and mental health problems. It further affirms the findings of Lee (2001) wherein strained people often have difficulty concentrating because they tend to focus on the sources of their stress rather than on the task at hand.

For the social effects, the indicators are sometimes experienced and affect them slightly. Participants prefer to be alone momentarily in order to think over their stressors which make it difficult for them to deal with their colleagues. On the flip side, the lonelier and more isolated a person is, the more vulnerable he is to stress (Tan).

Lastly, even in the face of stress, the employees seldom experienced the enumerated spiritual effects which can be deduced that the respondents have a solid spiritual foundation or deep sense of connectedness and faith with God. In contrary to the enumerated spiritual effects, the participants claimed to become more religious and frequently ask for God’s help during their most trying moments. The findings support the claims of Adams (2014) whereby spirituality buffers the negative side of stress and Mills et.al (2008) that spirituality decreases stress by allowing a person to create a sense of stillness, finding a sense of purpose and brighter perspectives.

Table 3. Extent of Utilization of Coping Strategies

| Coping Strategies | Overall Mean | Descriptive Equivalence |
|---|---------------------|--------------------------------|
| A. Physical Coping Strategies | 3.56 | Often Utilized |
| • Avoiding cigarettes and alcoholic beverages | | |
| • Getting enough rest and sleep | | |
| B. Emotional Coping Strategies | 3.47 | Often Utilized |
| • Accepting and forgive others’ shortcomings | | |
| • Confide problems with trusted colleagues | | |
| C. Psychological Coping Strategies | 3.60 | Often Utilized |
| • Accepting stress as part of life | | |
| • Accepting things that cannot be changed | | |
| D. Social Coping Strategies | 3.61 | Often Utilized |
| • Avoiding people who stressed them out | | |
| • Participating actively in school activities and going out for a break with family members | | |
| E. Spiritual Coping Strategies | 4.21 | Always Utilized |
| • Praying for God’s help and guidance than they used to | | |
| • Entrusting stressors to God’s hands | | |

Results of the study disclosed that coping strategies utilized involved a combination of physical, emotional, psychological, social and spiritual activities with spiritual coping as the most utilized strategy. Among the identified physical strategies, shunning from smoking and drinking alcoholic beverages are the two top most utilized strategies. It is inferred that the participants recognized that vices will only mask the issues at hand and are not reliable strategies to depend on. Additionally, adequate rest and sleep helps them to relax and fuel their minds to find solutions to their stressors. This corroborates with the assertion of the APA that one must avoid nicotine and drink alcohol in moderation when under stress because

nicotine is a powerful stimulant that increases levels of anxiety. Likewise, the food eaten can improve or worsen one's mood and affect ability to cope (Prachi).

As to emotional coping, accepting and forgiving others' shortcomings and confiding problems with trusted colleagues are the most utilized strategies. Forgiving others helps them to let go of the bitterness and stress that often results from conflicts in their relationships. Confiding problems with trusted colleagues allows them to unload carried burdens and can lessen stress. The findings is in congruent with the assertion of Robinson et.al that once a person is accepting of oneself and forgiving of others around him, surely he will tend to find that a lot of self-made stress will be relieved. It further supports the contention of Management Study Guide Experts (2008) that social engagement like reaching out to family and friends is the quickest, most efficient way to rein stress.

For the psychological coping strategies, the enumerated coping strategies are utilized most of the time. Since stress is unavoidable, accepting stress as part of their daily existence and accepting things that cannot be changed help in reducing self-made stress. The findings support the assertion of Chua (2011) whereby, accepting stress and things that cannot be changed eliminate the useless anger and the frustration of trying to live a stress-free life.

With reference to social coping strategies, the enumerated strategies were often utilized by the participants. Instead of succumbing to stress brought about by people around them, they prefer to stay away from those who stress them out. They turn instead to trusted individuals for solace. This implies that the participants experiment on subtle strategies to reduce stress while not compromising their interpersonal relationships with co-workers. The findings support the claim of Robinson which states that one should limit the amount of time spent with someone who stressed them out or rather end the relationship. In addition, participating actively in school activities and going out for a break with family members are strategies that can be a good stress-relieving activity. After all, a strong network of supportive friends and family members is extremely important to rein stress in all areas of life.

For spiritual coping strategies, majority of the participants turn to religion and spiritual activities for solace. Praying for God's help and guidance is always utilized because they believe that prayer is a powerful tool in averting stress and they find peace and comfort in taking time to pray and letting go of the thoughts and situations that cause their stress. Furthermore, entrusting their stressors to God's hands helps them handle their stress and emotions well. The result supports the claims of Mills et. al (2008) that spiritual practices help to shrink insurmountable obstacles and spirituality is a powerful tool with which one can turn on to in times of distress (Adams, 2014).

Table 4a. Correlation between Profile and Level of Stress

| Profile | WORK - RELATED STRESSORS | | | | | | | | | | | | Over all |
|-------------------|------------------------------|----------------|----------------|---------------|---------------|----------------|---------------|----------------|----------------|-------|-------|-------|---------------|
| | 2B.1 | 2B.2 | 2B.3 | 2B.4 | 2B.5 | 2B.6 | 2B.7 | 2B.8 | 2B.9 | 2B.10 | 2B.11 | 2B.12 | |
| Sex | -.100 | -.145 | -.365** | -.271 | -.312* | -.428** | -.240 | -.415** | -.388** | -.111 | -.105 | -.172 | -.291* |
| Civil status | -.207 | -.216 | -.049 | -.013 | -.118 | -.055 | -.197 | -.132 | .067 | -.132 | .089 | .074 | -.153 |
| Age | .008 | -.028 | -.113 | -.063 | -.205 | -.127 | -.001 | -.056 | -.037 | -.048 | .134 | .019 | -.077 |
| Job position | -.182 | -.042 | .109 | -.033 | .003 | .041 | -.014 | -.038 | -.163 | -.017 | .068 | -.173 | -.023 |
| Length of service | .024 | -.026 | -.124 | .073 | -.116 | -.099 | .062 | -.027 | .116 | .067 | .165 | .047 | -.028 |
| Net take home pay | .168 | .165 | .173 | .096 | .222 | .078 | .125 | .068 | -.034 | .085 | .131 | -.010 | .244 |
| | INDIVIDUAL RELATED STRESSORS | | | | | | | | | | | | Over all |
| | 2C.1 | 2C.2 | 2C.3 | 2C.4 | 2C.5 | 2C.6 | 2C.7 | 2C.8 | | | | | |
| Sex | -.004 | -.186 | -.019 | -.285* | -.270 | -.252 | -.181 | -.127 | | | | -.211 | |
| Civil status | .160 | -.006 | -.012 | -.070 | -.146 | -.332* | -.090 | -.268 | | | | -.160 | |
| Age | .177 | .197 | .147 | .074 | -.110 | -.202 | -.025 | -.121 | | | | -.034 | |
| Job position | -.120 | -.430** | -.139 | -.264 | -.095 | -.073 | -.297* | -.116 | | | | -.217 | |
| Length of service | .139 | .263 | .075 | .128 | -.071 | -.094 | .120 | .025 | | | | .035 | |
| Net take home pay | .124 | .146 | -.040 | .161 | .188 | .052 | -.038 | .024 | | | | .056 | |
| | FAMILY - RELATED STRESSORS | | | | | | | | | | | | Over all |
| | 2D.1 | 2D.2 | 2D.3 | 2D.4 | 2D.5 | 2D.6 | 2D.7 | | | | | | |
| Sex | -.015 | .015 | -.159 | -.235 | -.012 | -.172 | -.150 | | | | -.117 | | |
| Civil status | -.018 | -.233 | .052 | .016 | .011 | .299* | .010 | | | | -.055 | | |
| Age | -.123 | .016 | -.066 | -.075 | -.086 | .190 | -.008 | | | | -.076 | | |
| Job position | .005 | -.137 | -.091 | -.197 | .147 | -.225 | -.142 | | | | -.083 | | |
| Length of service | -.028 | .148 | .068 | .038 | -.038 | .207 | .022 | | | | .024 | | |
| Net take home pay | .082 | -.008 | .267 | .286* | .113 | .156 | .249 | | | | .202 | | |

As to the correlations of profiles and level of stress, sex has a significant and negatively weak relationship with work – related stressors which means that female employees experienced a higher level of stress when they are unable to assert themselves, there is lack of professional respect in the workplace, when they are not being involved in decision making; when organizational changes occur without adequate explanation of reasons, and when there is no mentoring for new employees. It can be deduced that female employees are assertive and want to be involved in matters concerning the organization.

In the same manner, net monthly take home pay has a high significant and positively weak relationship with work -related stressors which mean that those who are receiving a higher net monthly take home pay are more stressed than those with lesser monthly take home pay. The result contradicts the findings of Cohen et.al (2006) that low paid workers have higher levels of stress than the higher paid ones. Accordingly, higher-paying jobs bring greater personal control, more personal choices in their lifestyles and more resources at their disposal, leading to lower levels of stress. On the other hand, it supports the findings of Sharma & Kaur (2013) that employees with higher salary experience six times more role

stress as compared to those who are earning relatively lesser salary and those who are receiving a lesser take home pay.

Furthermore, civil status and job position showed a significant and negatively weak relationship with individual – related stressors. Single employees are more stressed than married or widowed employees as far as poor health issues are concerned. This is in line with Gore and Mangione (1983) statement as cited by Roxas (2009) that married individuals are better in health because of the presence of a support system whom they can turn to. Meanwhile, married employees are more stressed when the needs of their children are not provided well as compared to the singles and widowed employees. According to Girdano et. al (2001), married people have more issues to deal with in terms of stress. Their preponderant role in providing for the family further explains the result while undisputedly, single people have only themselves to think and worry about.

Moreover, faculty members reported a higher level of stress when faced with life crises issues and are less able to cope with work -related pressures as compared to the non – teaching employees. Lastly, length of service did not cause any variation on the sources and level of stress encountered.

Table 4b. Correlation of Profile and Effects of Stress

| PROFILES | PHYSICAL ASPECT | | | | | Over all |
|-----------------------------|-----------------|-------|-------|-------|---------------|----------|
| | 3A.1 | 3A.2 | 3A.3 | 3A.4 | 3A.5 | |
| Sex | .029 | -.074 | -.070 | -.092 | -.102 | -.067 |
| Civil status | -.162 | -.137 | -.121 | -.023 | .052 | -.060 |
| Age | .064 | .143 | -.198 | -.235 | -.174 | -.049 |
| Job position | -.313* | -.183 | -.020 | -.048 | -.006 | -.174 |
| Length of service | .146 | .165 | -.098 | -.069 | -.119 | .067 |
| Net take home pay | .126 | .145 | -.053 | -.046 | -.006 | .049 |
| EMOTIONAL ASPECT | | | | | | |
| | 3B.1 | 3B.2 | 3B.3 | 3B.4 | 3B.5 | |
| Sex | .083 | -.121 | -.108 | -.003 | -.015 | .014 |
| Civil status | .202 | .043 | .110 | .073 | -.059 | .077 |
| Age | .001 | .075 | -.085 | .117 | -.143 | .003 |
| Job position | -.077 | -.129 | -.094 | -.134 | -.130 | -.148 |
| Length of service | -.023 | .045 | -.122 | .113 | -.139 | .000 |
| Net take home pay | -.013 | .204 | .023 | .146 | .134 | .110 |
| PSYCHOLOGICAL ASPECT | | | | | | |
| | 3C.1 | 3C.2 | 3C.3 | 3C.4 | 3C.5 | |
| Sex | -.117 | -.114 | .103 | -.051 | -.283* | -.057 |
| Civil status | .156 | .077 | -.073 | -.069 | .184 | .083 |
| Age | -.078 | .007 | .036 | -.153 | -.016 | -.016 |
| Job position | -.069 | -.169 | -.064 | -.022 | -.235 | -.149 |
| Length of service | -.050 | .059 | .020 | -.199 | .134 | -.001 |
| Net take home pay | -.016 | .119 | -.114 | .039 | .163 | .054 |
| SOCIAL ASPECT | | | | | | |
| | 3D.1 | 3D.2 | 3D.3 | 3D.4 | 3D.5 | |
| Sex | -.022 | -.158 | -.117 | -.240 | -.127 | -.170 |
| Civil status | .019 | .007 | .168 | .089 | -.015 | .016 |
| Age | -.087 | -.030 | -.070 | -.199 | .045 | -.085 |
| Job position | -.008 | -.115 | -.140 | .039 | -.108 | -.049 |
| Length of service | -.012 | .115 | .055 | -.026 | .138 | .038 |
| Net take home pay | .208 | .270 | .086 | .269 | .257 | .256 |

| | SPIRITUAL ASPECT | | | | | |
|-------------------|------------------|-------|------|-------|-------|------|
| | 3E.1 | 3E.2 | 3E.3 | 3E.4 | 3E.5 | |
| Sex | .161 | .195 | .084 | .007 | .211 | .117 |
| Civil status | -.002 | -.009 | .029 | -.004 | .020 | .010 |
| Age | .083 | .185 | .180 | .168 | -.008 | .126 |
| Job position | .100 | .048 | .023 | -.080 | .125 | .091 |
| Length of service | .249 | .284 | .182 | .169 | -.022 | .147 |
| Net take home pay | .028 | .067 | .201 | .203 | -.056 | .056 |

Results revealed that job position has a significant, negatively weak relationship with the physical effects of stress while sex showed a correlation with psychological effects. When under stress, teaching employees tend to experience the physical effects of stress as compared to non-teaching employees. For the psychological effects, female employees tend to become more disoriented to school policies and school activities when under stress as compared to the male employees. Several factors appear to magnify the impact of stress in women and chief among them is the mundane role that women play in family care apart from their workloads.

Conversely, it was found out that age, length of service and net monthly take home pay do not cause any variation on the experienced effects of stress along with emotional, social and spiritual aspects.

Table 4c. Correlation between Profile and Extent of Utilization of Coping Strategies

| PROFILES | PHYSICAL ASPECT | | | | | | Over all |
|-------------------|----------------------|-------|-------|---------------|----------------|-------|----------|
| | 4A.1 | 4A.2 | 4A.3 | 4A.4 | 4A.5 | | |
| Sex | .242 | -.068 | .031 | -.042 | -.397** | -.161 | |
| Civil status | -.148 | -.181 | -.172 | -.335* | .087 | -.183 | |
| Age | .105 | -.131 | .031 | -.120 | -.099 | -.108 | |
| Job position | .135 | .040 | .010 | -.157 | -.018 | -.030 | |
| Length of service | -.096 | -.172 | -.164 | -.062 | -.027 | -.193 | |
| Take home pay | .049 | .176 | .001 | .000 | .009 | .069 | |
| | EMOTIONAL ASPECT | | | | | | |
| | 4B.1 | 4B.2 | 4B.3 | 4B.4 | 4B.5 | 4B.6 | |
| Sex | -.223 | -.185 | -.090 | -.099 | -.194 | -.058 | -.198 |
| Civil status | -.061 | .069 | .176 | .077 | .092 | .151 | .171 |
| Age | -.121 | -.081 | -.116 | -.181 | -.012 | .109 | -.057 |
| Job position | -.076 | -.112 | -.264 | -.048 | -.100 | .006 | -.106 |
| Length of service | .010 | .037 | -.050 | -.076 | .144 | -.010 | .111 |
| Take home pay | -.070 | .047 | .009 | -.052 | -.100 | -.015 | -.030 |
| | PSYCHOLOGICAL ASPECT | | | | | | |
| | 4C.1 | 4C.2 | 4C.3 | 4C.4 | 4C.5 | | |
| Sex | -.102 | .119 | .069 | -.029 | -.001 | | .006 |
| Civil status | .114 | .209 | .053 | .166 | .006 | | .093 |
| Age | .194 | .130 | .017 | .263 | -.034 | | .187 |
| Job position | -.183 | .009 | .052 | -.342* | .228 | | -.153 |
| Length of service | .166 | .119 | .134 | .312* | -.168 | | .203 |
| Take home pay | -.002 | -.007 | -.021 | .198 | -.076 | | .107 |

| | SOCIAL ASPECT | | | | | | |
|-------------------|------------------|-------|-------|----------------|-------|-------|-------|
| | 4D.1 | 4D.2 | 4D.3 | 4D.4 | 4D.5 | 4D.6 | |
| Sex | .123 | .203 | -.112 | -.079 | .015 | -.187 | -.108 |
| Civil status | .112 | .215 | -.191 | -.191 | .048 | .145 | .026 |
| Age | .014 | .276 | -.230 | -.381** | -.059 | -.231 | -.103 |
| Job position | .139 | -.141 | .096 | .282* | .087 | .104 | -.019 |
| Length of service | -.104 | .164 | -.151 | -.361** | -.054 | -.217 | -.078 |
| Take home pay | -.024 | .072 | -.040 | .074 | .001 | .042 | .165 |
| | SPIRITUAL ASPECT | | | | | | |
| | 4E.1 | 4E.2 | 4E.3 | 4E.4 | 4E.5 | 4E.6 | |
| Sex | -.250 | -.022 | -.133 | .212 | -.099 | -.206 | .035 |
| Civil status | .044 | .233 | .026 | .061 | .172 | .133 | .224 |
| Age | -.026 | .249 | .170 | -.076 | .047 | -.023 | .114 |
| Job position | .004 | -.264 | -.202 | .114 | -.094 | .088 | -.026 |
| Length of service | -.041 | .325 | .253 | -.104 | .104 | -.010 | .108 |
| Take home pay | .091 | .058 | .230 | -.112 | .002 | .019 | .037 |

Concerning coping strategies, sex showed a correlation with utilization of physical coping strategies. Females always avoid smoking and drinking intoxicated drinks if they feel tensed as compared to the male respondents. Sex difference in relation to stress and management is mainly rooted in the notion that males react more cognitively and socially interactive while women are more spiritual than men (Chungalao 2014, APA 2011).

Similarly, civil status showed a significantly weak correlation with utilization of physical coping strategies. Single employees prefer to utilize listening to soothing music and doing relaxation techniques more often when they are under stress.

Moreover, results showed that job position and length of service have a correlation with utilization of psychological coping strategies. Faculty members do reflection and meditation more often than the non-teaching personnel in order to cope better with their life stressors. Further, those who have rendered services for 11 years and above usually utilize meditation and reflection to manage their stress as compared to those who are still new in the institution. This may be associated to the fact that seasoned teachers are already equipped with approaches to manage stressors in the workplace.

For social coping, results revealed that younger employees prefer going out for a break with my family members more often than the older employees in order to chill out. Similarly, those who are still new in the institution utilized going out for a break with family members more often as a coping mechanism while the non-teaching employees prefer going out for a break with family members to avert their stressors.

Meanwhile, findings showed that there is no correlation between demographic profiles and extent of utilization of emotional coping strategies. These mean that the extent of utilization of said coping strategies across age, job position, length or service and net monthly take home pay is almost the same. Any observed variations are due to chances.

Similarly, participants' profiles do not influence the frequency of utilization of spiritual coping strategies. Possible explanation is the common knowledge that Filipinos are God – fearing and religious people who always turn to their spiritual activities as a sanctuary to avert stress and other forms of crises.

Conclusions

From the findings, it was concluded that:

1. Stress encountered, which emanated from their work, family relations and individually-related are still manageable and within the employees' control.
2. When stress takes its toll, it affects almost all the aspects of the employee
3. In spite of the complex relationship between stress and coping, the employees utilized varied coping strategies in order to deal with the adverse effects of stress.
4. Stress response and coping strategies are dependent on the employees' demographic profiles.
5. There is a need to come up with employees' wellness policies and programs to address workplace stress.

Recommendations

In the light of the findings, the discussion and conclusions thereof, the following are further recommended.

1. A wellness committee must be created and wellness policies must be formulated in the campus.
2. A revitalized and strategic employee's wellness program involving physical, social, career and financial strategies must be implemented.
3. Employees should develop personal stress management techniques that respond to the specific nature of their stressors.
4. Opportunities for social interaction outside the campus are also recommended.
5. A similar study must be conducted including efficacy of coping strategies in the workplace.

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